ENGINEERING NEWS-RECORD

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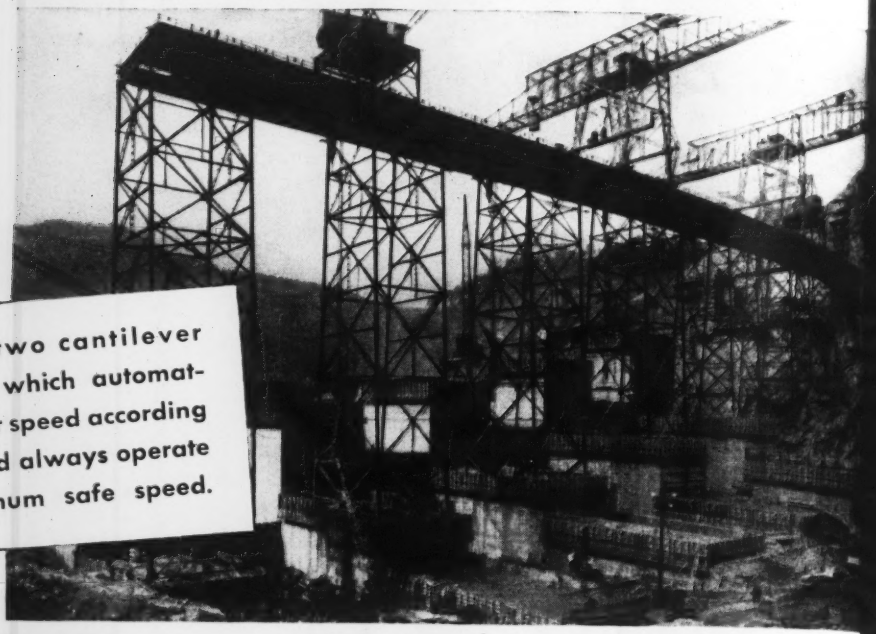
Theatre of Operations

Two Cantilever Cranes That WEIGH THE LOADS They Li



The story of two cantilever gantry cranes which automatically vary their speed according to the load, and always operate at the maximum safe speed.

By

M. A. WHITING

Industrial Engineering Division, General Electric Company

A NEW type of electric equipment on two large cantilever gantry cranes fulfills the need of a dam builder for equipment which enables him to pour concrete safely at a faster rate than ever before.

These cranes are furnished with 3-phase a-c power supply. They have a 300-foot "wingspread," operate along the top of a trestle 250 feet high, and can handle 4-yard buckets of concrete as readily as you can handle a pail

The secret of their speed and accuracy lies in their unique hoisting equipment, which in effect weighs each load. The "brains" of this weighing operation is a development called the cross-flux exciter—about the size of a bushel basket. This device measures the load on the crane continuously and automatically, and controls the hoisting and lowering speeds accordingly, operating on the a-c power supply. *The lighter the load, the higher the speed; the heavier the load, the lower the speed—both hoisting and lowering.* This feat has heretofore been considered impossible except by the use of a complicated battery of sensitive load-responsive relays.

When the crane picks up a bucketful of concrete, the operator does not need to worry about safe operating speeds. The crane assumes that responsibility. After the load of concrete has been lowered into position and dumped, the operator returns the empty bucket to the starting point at speeds up to twice as high as those used in handling the full bucket. The cross-flux exciter "feels" the change of load, and controls the speed accordingly.

In case the bucket jams and refuses to budge, the electrical "brain" permits the crane to pull just so hard and no harder. That is to protect against picking up a load too heavy for the crane, which might overt when the load is trolleyed out the end of one of the arms.

The trolley *operation is also* ***usual*** in that the customary rel and protective devices are dispen with. Instead, a small motor size of that on a washing mach irons out the accelerating pe assuring a smooth rate of change speed under all conditions. This valuable asset in limiting the sw of the heavy bucket while trolle

This is another example of the application of new techniques to solve a construction problem created by today's needs. If you have a difficult problem where the experience and skill of G-E engineers can be of help we should like to work with you. General Electric Company, Schenectady, New York.

★

The best investment in the world is in this country's future—

BUY WAR BONDS

★

GENERAL ELECTRIC

The Week In Engineering and Construction

INEERING NEWS-RECORD • SEPTEMBER 16, 1943 • VOLUME 131 • NUMBER 12

WA and FPHA plan to ask ongress for more funds

r housing and public works for war communities tinue at high ebb, while the rest of the public works gram is cut by WPB.

expected that Congress will be o appropriate another $250,000,- session for war housing and for works and services in communi- t have expanded under the war n. Of this amount, $50,000,000 ublic works and services, and it erstood that the Federal Works which will administer the fund. Congress the first week after it nes to consider the appropria- hich would be in addition to a amount appropriated before the in July.

he time of hearings on the bill authorized $200,000,000 for use, it was brought out that that was then getting low on funds had previously been appropriated amounts of $300,000,000 for vide use and $17,500,000 for proj- the Washington metropolitan area the agency has announced no on its unobligated balance, its ted promptness in asking Con- or more funds indicates that the gain is running low. Even though ss responds favorably, the author- of $200,000,000 will be but half riated. Hospitals, schools, sewers. ter supplies are important among jects being built under the war works program.

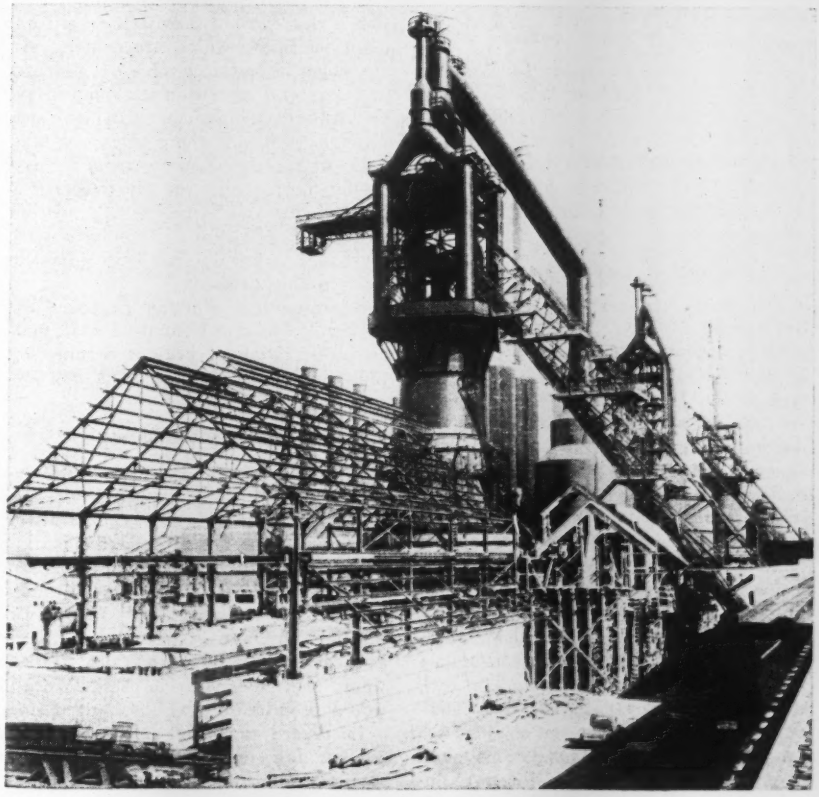
More funds for housing

dditional $200,000,000 which the Public Housing Authority hopes Congress to appropriate this ses- uld make available the remainder $300,000,000 authorized, and of one-third was appropriated before ss recessed. The war housing as determined by the National g Agency, is for 1,100,000 war s. The FPHA outlines its build- rogram on needs determined by National Housing Agency. The 0,000 authorized by this Con- s in addition to $1,200,000,000 authorized in 1940 for war housing jobs.

These two essential war programs continue to forge ahead despite the War Production Board's action of a year ago designed to reduce construction work as a means for conserving materials and manpower.

Projects totaling $1,500,000,000 in value have been halted since last September. Most severely effected are roads, bridges and tunnels. Reclamation projects were hard hit in last year's order. Nineteen of these have since had the stop-orders revoked but the amount is small in consideration of the total.

Industrial construction alone, which in 1942 amounted to six billion dollars, will decline this year to an expected four billion; and by 1944 it is expected to be down to 2.1 billion.



Blast Furnace No. 1 at Provo nears completion

Rapidly nearing completion is Blast Furnace No. 1, one of the $180,000,000 rehabilitated steel plants being reconstructed in Utah for the government by Columbia Steel Company, U. S. Steel Corporation subsidiary. The furnace is one of three units, each with a capacity of 1,200 tons daily. This large integrated steel plant will have an annual capacity of 1,200,000 tons of ingots, 700,000 tons of plates and 250,000 tons of structural steel when completed.

In ENR, Dec. 3, 1942, p. 766, there was a description of how two blast furnaces and all their appurtenant equipment, idle for ten years, were being dismantled in Illinois for shipment to other points to be rebuilt and put into service. The material and equipment of one of them has gone into the big Utah plant, part of which is shown in the above illustration.

Freezing of surplus war property proposed in bill now before Congress

Representative Patman's measure would also make it mandatory for the construction industry and others to employ disabled veterans after the war, and asks that they be trained at government expense.

Wright Patman of Texas, chairman of the House Committee on Small Business, introduced a bill in Congress Tuesday which would freeze all sales of surplus war property, make it mandatory for private industry to employ disabled veterans after the war, provide for the appointment of a custodian of surplus war property, and permit war veterans to be trained in engineering and other fields at government expense.

The bill, known as the Demobilization and Surplus War Property Bill, is H.R. 3200. It is said that President Roosevelt favors the proposed legislation, and that the provision concerning mandatory hiring of disabled men was included at his bidding. The proportion would be one disabled man for each one hundred hired.

Since war surpluses could be disposed of only by the Surplus War Property custodian appointed by the President, the legislation, if enacted, would have the effect of freezing all war materials and equipment as they became surplus, whether at the end of the war or at an earlier date.

Control of surplus material

Concerning the custodian's duties the bill says:

"Whenever the President or the head of any agency determines that any property of the United States used or held in connection with the prosecution of the war is surplus to the needs of such agency in carrying out its functions and duties, such property shall thereupon be transferred to the custodian. Upon such transfer the board of directors of the Smaller War Plants Corp. is directed to make a survey of the uses to which such property may be put by small business enterprises in the various communities in the several states, and shall formulate recommendations to the custodian with respect to such uses, and the time, manner, and place of disposition of such property. Such recommendations shall be made with a view to facilitating and encouraging the establishment in the various communities in the several states, by members of the armed forces of the United States upon their discharge or release from active duty, as well as by others, of small business enterprises, and with a view to strengthening existing small business enterprises."

Pending the Smaller War Plants Corp.'s recommendations, the custodian is "to use, manage, and operate such property, and upon receiving such recommendations to lease, sell, or otherwise dispose of such property in accordance with such recommendations. He is authorized, in selling any such property, to extend credit to the purchaser. The rate of interest in connection with any credit so extended shall not exceed 3½ per centum per annum."

Mr. Patman points out that "the federal government has now in its possession a vast store of materials,—tools and plant facilities—which are causing visible alarm in certain circles. It is feared that this vast government stockpile will be utilized to damage existing firms through post-war competition. Rather than write off the investment involved in this property or let the property go into the hands of firms which are now strong and powerful in their own right, I propose that we create a custodianship to hold this property."

Representative Patman proposes that his Small Business Committee shall make an investigation of present surplus supplies, including machine tools and construction equipment.

Dumping prohibited

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Used building machine… in very active demand

Approximately 8,000 pieces of construction machinery have changed hands since the first of January, the Machinery Section of the Construction Machinery Division of the War Production Board announces. This is about a fourth of the total number of such pieces registered with the division.

The amount registered is believed by the division to be about 70 percent of total construction machinery in the United States, exclusive of equipment owned by the Army and Navy; and by county, and municipal governments, agencies or divisions. Over 53,000 units have been listed since the middle of…

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In most cases, the equipment that has changed hands has gone to persons who applied for new equipment, were denied it, and were referred by the Machinery Section to a dealer, or to a contractor who was willing to dispose of it. The division does not actually make sales. Rather, it helps prospective buyers contact would-be sellers. The prospective tractor may sell direct or through a dealer or distributor. Buyers may be other contractors, or they may be log… mine operators or other persons engaged in filling other essential war needs.

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ENGINEERING ABROAD AS SEEN BY ENR EDITORS

Army Engineers in the E.T.O.

Waldo G. Bowman
Editor, Engineering News-Record

Note: Written and airmailed immediately after Waldo Bowman's arrival in England over three months ago, the original of this piece was lost in transit. But here's what he wrote as per a carbon copy, just received. Although out of sequence in the series, it is still just as timely as it was in June, since which date the author has gone a long way as shown by the accompanying picture of him taken in the Middle East.

EUROPEAN THEATRE, June 10. Following construction, whether you work at it or write about it, is a lot like having a bull by the tail—you go where the bull goes. In the summer of 1943 this was to war theatres abroad so that these dispatches begin aboard on amphibian Angus headed east to where it is rumored vast construction operations by American Army and Navy forces are under way. Indeed, the rising air offensive from Britain, the North African victory and the intensified naval patrols against submarines in the Atlantic are proof enough that many construction projects—airdromes, ports, roads, bases and the like—are already completed and in operation. More will be needed as the attack against the European fortress gains momentum.

A troopship is ideal for transportation to war theatre construction. Not only may it perhaps afford opportunity to brush up on your poker and black jack before entering the big leagues, but it is likely to throw you (perhaps literally) into contact with the very persons you are seeking, in this instance engineer troops and officers. In my case both objectives were achieved. Only the latter will be dwelt upon, although it may be recorded that the American construction man is no less adept at games of chance by virtue of donning a uniform.

No better introduction to America's army construction forces could be imagined than was provided by my shipmates with engineer castles on their lapels. Fresh out of Officer Candidate School, their shiny new gold second lieutenant's bars labeled them "Shavetails", but their bearing was that of veterans. A little sleuthing revealed the reason: the great majority had been enlisted men or non-commissioned officers, with a year or more service under their belt, before being tapped for O.C.S. at Ft. Belvoir. And all of them had a background of specialized engineering or construction training before they got into the army.

One of the most heartening things was the affection and concern these young officers displayed toward the troops in their charge. This was their first command, given to them only a matter of hours before embarking. The troops were complete strangers to them and they might never see them again disembarking, but a mother hen have been no more solicitous. The troops respond to such treatment evident from the remark of one officer near the end of the voyage: men are swell. I would like no better than to stay with them for duration". Mutual respect between and leaders should make an efficient army, just as it makes an efficient struction organization.

Waldo Bowman in desert garb

Inspiring, too, was the attitude these young officers toward the staff at Ft. Belvoir's O.C.S. and course of instruction that they weathered. Praise for both was volunteered time and again. No university a more loyal alumni body, if these are a sample. None, of course, has ter material to work with. Consider experience records of a few of the cent graduates, now headed for graduate work overseas. Ages from 20 to 30, names are fictitious records are not.

Abbott—Penn State graduate in tecture. Four years on industrial ing construction.

Jones—structural engineer from York state; self-educated with the International Correspondence Schools operated own office designing garages and apartment houses; spent eight months in Iceland as enlisted and N.C.O. in army signal corps.

Brown—engineer with Texas way Department; contractors' field neer on road up Colorado's Big Thompson Canyon; sergeant in department, handling heavy equipment for past twenty-five months.

Carlisle—mining engineer in Arizona on copper stripping operations.

Fairbanks—entered engineer after five years as an enlisted man

assigned to ground mechanics
ows army heavy equipment for-
backward.

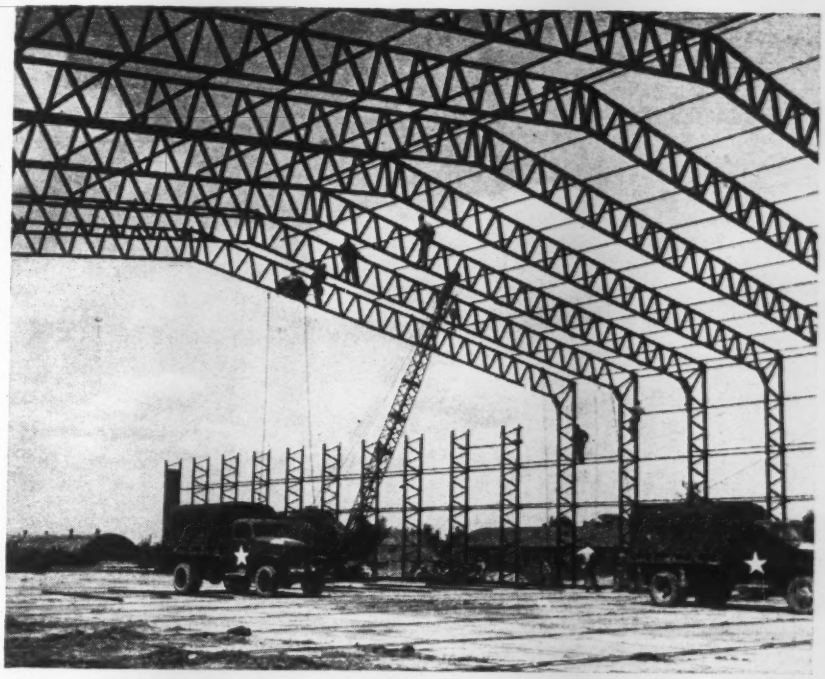
—civil engineering graduate of
ton and Jefferson; three years
ennsylvania power company; en-
Engineers 14 months ago, most
was spent on surveying on the
ighway and other army projects
ukon and Alaska.

—owner of a fleet of highway
trucks, acquired one at a time
had driven the first one himself
years.

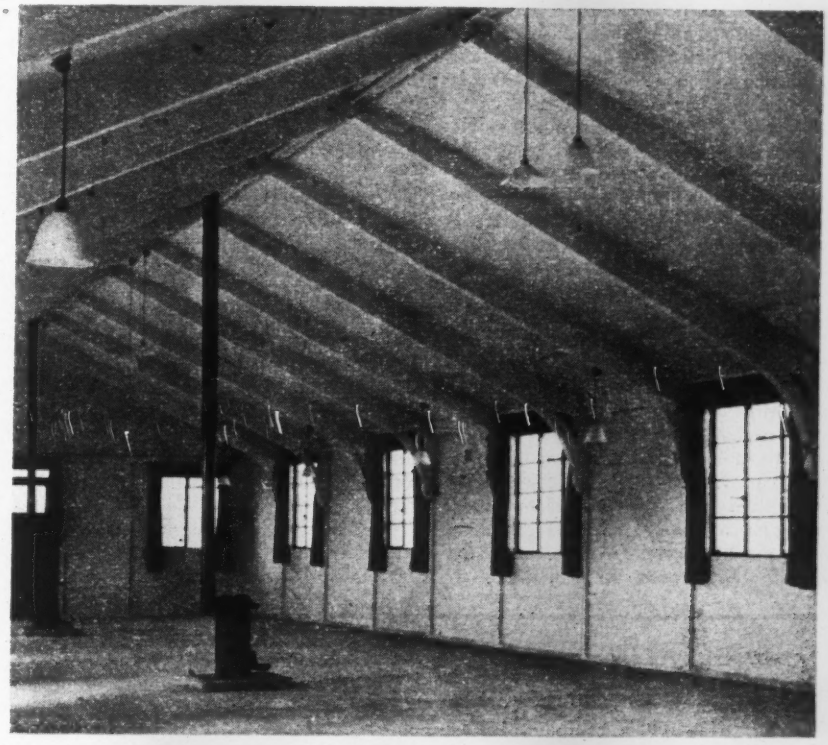
Red Cross official who was
and who had served with the En-
in the last war remarked "The
al commanders who draw these
will be lucky guys."

ertinent to add that the engineer-
anizations and contractors who
when the war is over will also
, for the Army Engineers in this
are due to get more construction
ce in the next few months than
e packed into several years of
e activity at home. Under an
tion as efficient for its purpose,
waging war, as the Belvoir staff
raining, big plans and big pro-
e even now beginning to take
had not been in Britain long
was privileged to see that organ-
n action.

Army Engineer set up in the
European Theatre-of-Operations)
ically the counterpart of their
e organization in the United
A better way to state it, perhaps,
to mix cause and effect, is that
time the Engineers retain their
organization. In this theatre,
mple, there is a Chief Engineer.
nding exactly to the Chief of En-
t home. He is Brig. Gen. Cecil
e, who not so long ago was dis-
gineer at Portland, Ore. Like-
has deputies or assistant chiefs
up his headquarters, and depart-
f intelligence, troops, construc-
supply. Each such department
is made up of two eschelons of
— planning and operations
as on peacetime public works.
ections of these eschelons may be
ed to handle specific projects or
Thus, to fit the needs of the
here, the operations eschelon of
tion is of two parts, one con-
ith airdromes, the other with
force work such as troop hous-
material storage. Backing up
struction work is, of course, a
rters design department.
the field, too, the familiar divi-
district organizations are to be
The divisions are known as base
and are headed by a Base Sec-
mmander, assisted by a Base
Engineer, who commands all
construction troops. District
are in charge of the districts



British contribute the hangar and an American Engineer general service regiment the know-how on construction speed is an example of Allied cooperation.



Precast concrete building of British design destined for use as an American hospital.

and there are area engineers to handle specific projects or groups of projects. When a visitor hits one of these jobs, where he is surrounded by familiar faces and familiar American construction equipment, operated in typical American slam-bang manner, the illusion is complete. What is this, Westover Field or on airdrome near Yardley Hastings or Moreton-on-the-Marsh? You can't tell from your immediate surroundings.

One exception to this exact parallelism to Army Engineer construction in the United States may, however, be noted.

Veteran airbase builders in Britain, Engineer Lieutenants Hout, Homann and Frantz are typical of a growing group of young officers who are the best ambassadors we have ever sent abroad.

This relates to the presence on each airdrome of a civilian resident engineer of the British Air Ministry. He performs the liaison work that is necessary, whether the airdrome be one that we are building in virgin territory, or an existing British field that has been taken over for rebuilding to fit American Air Forces requirements. So effective is the co-operation and cordial the relationship between these British R.E.'s and the American engineers that one would suspect they had worked together years instead of only a few months. Because of their extensive knowledge of British airdrome construction since the beginning of the war, and of the repair and reconstruction after bombings, these R.E.'s are key men in the Army Engineers organization.

First impressions are never conclusive, but visits to a number of both British and American army construction projects seem to indicate that a trading of practices is proving mutually beneficial. Our mechanized construction operations, assuring much greater speed of accomplishment, are being copied in an increasing number of instances. And on their part the British have contributed a number of ideas, particularly with respect to structures, which have been adopted as superior to our own. A British hangar, made up of a series of welded rigid frames, entirely bolted in the field, is proving very useful. Incidentally one general service regiment of Engineers built one of these complete in twelve days. Then, too, the British use 2 ft.-square precast concrete slabs for camp sidewalks and even for camp building floors; extensive use of these slabs has speeded up our work time and again.

Other British structures that we have adopted include long span Nissen-type huts for warehouses and shops, and a square flat-bottom elevated water tank, which is made up of flanged steel plates about 3 ft. square, bolted together against mastic-sealed joints and thus quickly erected or dismantled. Most striking of all is the extensive use we are making of precast concrete structures of which the British have a surprising number of types.

Such trading of ideas and experience is making the United Nations united in fact as well as in name.

General Hannum retires

The retirement of Brigadier General Warren T. Hannum, a graduate of West Point, class of 1902, division engineer of the Pacific Division, U. S. Engineer Department has been announced by the War Department.

The announcement points out that General Hannum, who took an active interest in the construction of the debris dams in California and who was also an honorary member of the California Hydraulic Miners Association, has been ordered into retirement under the provision which requires that officers who have reached the statutory retirement age (62 for brigadier-general) be relieved from active duty by September 30.

Early in 1938 General Hannum was ordered to San Francisco, where he was division engineer in charge of the South Pacific division. He assumed charge of the Pacific division on its organization on Dec. 1, 1942. He was appointed brigadier general in May, 1942.

Revenue declines sharp on Pennsylvania Turnpi

The Pennsylva[nia] Turnpike [Com]mission, which repor[ted] a loss of $[...] in the fiscal yea[r] ended last M[ay] keeping operation[s] costs at a minim[um] face of sharply di[min]ished revenues the 160-mile toll [hi]ghway between [Har]risburg and Pittsburgh. Cha[irman] Thomas J. Evans has asserted.

Evans reported a recent audit s[how]ed the commission revenues totalled $[...] 000 against $1,530,000 paid out as interest on $40,800,000 in outst[and]ing bonds, and $814,000 expended for maintenance and operation in the year [ended] May 31.

Operation costs, however, were $[...] 000 less than the previous fiscal [year] when the Turnpike produced a net income of $1,232,000. Mr. Evans added

. . .

Bridge design contest suspended for duration

The American Institute of Steel Construction has announced that it has decided to suspend its Students' Annual Bridge Design Competition while the war lasts.

This action, necessary because of students' wartime schedules, is greatly regretted, the Institute says, particularly on account of the gratifying response on the part of students since the competition was inaugurated in 1929. The interest shown by the student entrants led to a marked stimulation of ideas in connection with modern bridge design.

. . .

Tampa needs more wat says engineers' report

An immediate expenditure by Tampa, Fla., of $250,000 to boost the capacity of the city's inadequate water plant, with or without government aid, was recommended by Robert & Co., engineers, in a recent report to Mayor Chancey. The mayor sent the report to the board of aldermen and urged that work be started without delay.

The Robert report stressed the inadequate capacity of the Tampa plant, built in 1925 to deliver 12,000,000 gal. of water a day.

Pressure in the business district frequently dropped to 40 lb. per sq. in. while the pumps were working hard, and once it went down to 25 lb. The engineers estimated that consumption in 1943 would be 1,000,000 gal. more than in 1942, with the demand up 2,000,000 gal. on some days.

OUR ENGINEER GENERALS

Chief, Service of Supply, European Theatre of Operations

MAJ. GEN. JOHN C. H. LEE

n the average Britisher says, "I
e American general today", he
John C. H. Lee, career Army
er, now Chief, Services of Sup-
uropean Theatre of Operations
major general in rank. Other
an generals are given their due
leaders, but John Lee rates a
pedestal; his is a place in the
heart where he not only personi-
merica as a generous, powerful
riendly ally, but where he is re-
with an affection akin to hero
. As the man at the spigot of
peline from America's war fac-
he is Santa Claus to the British
ort, and would naturally be re-
with respect and gratitude. But
Lee's appeal to the British goes
eeper, resting, one can only con-
on his own human qualities of
honesty, idealism and efficiency,
it may be said, are always in
iew.

ing him in his headquarters in
Britain is not unlike visits that
eaders of this piece must have
h him in times past. Except that
re more people waiting to see
the first ante room, the clatter
typewriters and more coming
ing in the inner office, and that
ls of his private quarters carry
Great Britain and Europe in-
the Mississippi and Yazoo river
this might be Vicksburg, Phila-
or Portland, Ore., where he
ongest as district and division
of the U. S. Engineer Depart-
Now, as then, General Lee is
loss over the physical aspects of
and dwell on its social or eco-
possibilities. Then, as he does
e would rather discuss conse-
than ephemeral details.

g as he does on many joint
Nation boards, he has seen what
tion can accomplish when a com-
bjective prevails. He fervently
uch cooperation to continue after
, and not only to include our
ut our present enemies as well.
ration is the greatest force for the happiness and well being of the world, and by cooperation I mean mutual sharing" said General Lee. "The British developed better military bridges than we did, so we use them. We developed better tanks than the British, so the American tank is a British armoured force item". That is mutual sharing, and General Lee recommends it as a peacetime practice among all

Maj. Gen. John C. H. Lee

nations, to the end that greed, selfishness and competition, which cause wars, can be eliminated.

General Lee is a devout churchman, of Episcopal faith. He practices Christianity in his daily life, and he sets an example of church attendance that his officers and men admire and often seek to emulate. What must have been one of his proudest moments occurred recently when he attended the double confirmation of his aide and of his negro chauffeur, Henry, at Gloucester Cathedral.

As chief of SOS, General Lee has under his command the Quartermaster, Medical, Transportation, Ordnance and Engineer functions of the Army in the European Theatre of Operations. His is the responsibility of equipping the invasion army, of training large chunks of it, and of transporting it to the front. He discharged this responsibility brilliantly in the North African campaign, and is now working night and day preparing for the major invasion of the Continent of Europe. No Engineer officer ever had a tougher job.

The efficient organization that General Lee has built in Great Britain is kept efficient by his constant urging. His inspections create consternation and admiration in that order. He is on the go all the time. A special train is at his disposal, and he uses it for long trips, but his favorite means of transport is an army jeep, which he drives himself at such speed that his staff officers hate to have to follow him.

At one Engineer construction job that he inspected recently, the General asked to be shown a slump test of the concrete going into the runways. Slump tests are supposed to be taken every hour, but the slump cone was nowhere to be found. A bomb could have caused no more confusion, but the inspection was successful—hourly slump tests were made a rite on that job from that time forward. On another occasion the swagger stick that General Lee was carrying suddenly turned out to be a pressure gage, and truck drivers whose tires were under-inflated will never forget it. These attentions to details and insistence upon perfection have a tremendous effect upon the troops. "The general knows his stuff", they say with pride.

General Lee has known his stuff for a long time. Appointed a second lieutenant in the Corps of Engineers after graduation from West Point in 1909, this 56 year old officer, who was born in Junction City, Kansas, is both an engineer and a soldier. In the years before the last war he was on river and harbor work at Detroit, Rock Island, Wheeling, Pittsburgh, and in the Canal Zone. In 1914 he made a military survey of Guam, and then proceeded to the Philippines where, as a senior topographical inspector in charge of field operations, he pre-

(*Continued on page* 14)

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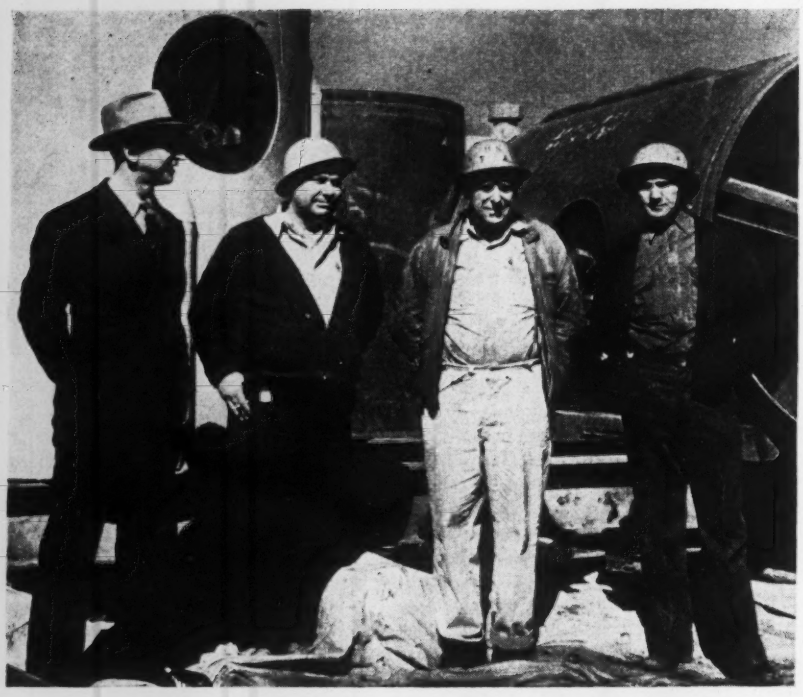
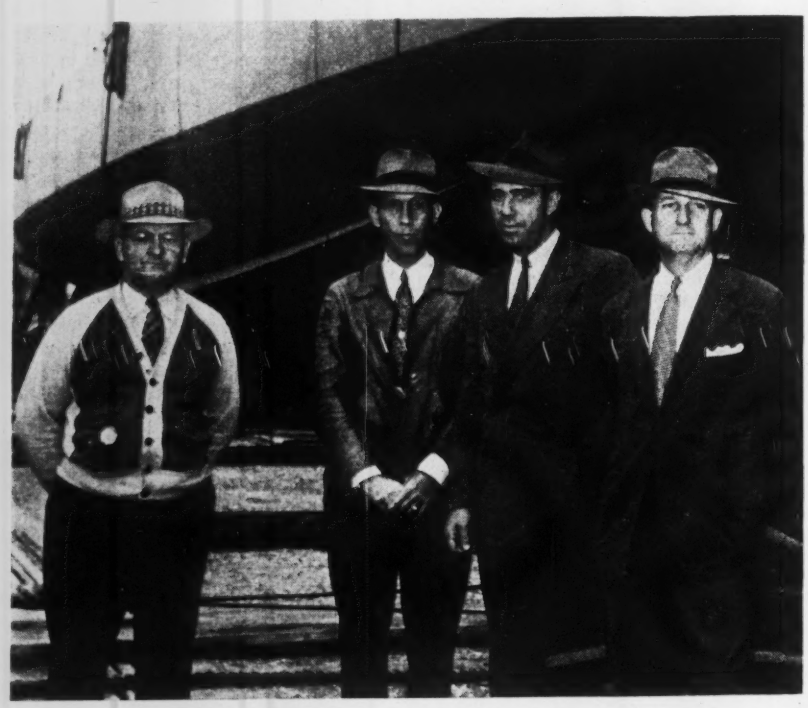
MEN AT WORK

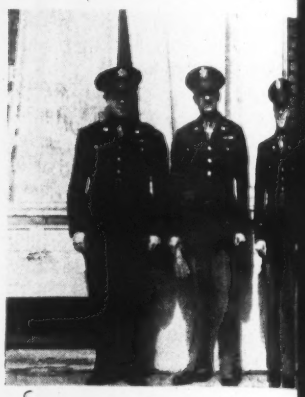


Key figures in organizing and carrying out a parts recovery program by which the Tennessee Valley Authority helps keep its machinery going full speed on war construction jobs are Dale W. Yambert, senior mechanical engineer of the Construction Plant Division; A. H. Thompson, general garage foreman; Arthur C. Knoll, master mechanic in charge of the Fort Loudoun garage and machine shops; and Fred Jones, general machine shop foreman.

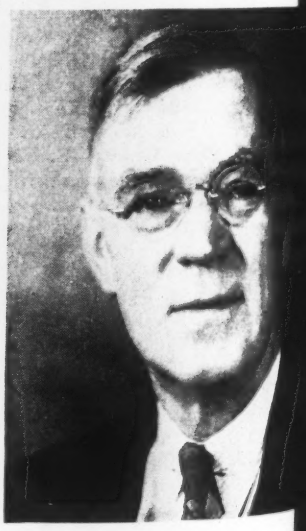


From dams to fighting ships might well be the title of the picture of these construction men now building Navy ships for Brown Shipbuilding Co. Left to right are B. F. Christian, assistant general superintendent and long time shipbuilder; Tom Brown, general superintendent; J. E., "Walt", Walters, works manager; and M. P., "Pat", Anderson, assistant works manager and chief engineer. The latter three are construction men who supervised work on Marshall Ford Dam, several TVA projects and other heavy construction jobs.

Engaged on construction in many pa the country since war began, Maj. Fen Lewis (center below) is now area engi the War Department's modification cen Vandalia, Ohio. His executive assistan Capt. Robert B. Prinz (left), and Lieut. C H. Lewis (right).



C. B. Brown, consulting engineer t Canadian National Railway System, rec saw the completion of a project on wh has worked for 15 years, the C.N.R. pass terminal at Montreal (ENR July 22, p. Reconstruction of the CNR facilities in treal was begun in 1929 when Mr. Brow chief engineer of the operating depar Mr. Brown is a native of Ithaca, N. Y., graduate of Cornell, civil engineering,



General Marshall reports on engineers part in Army's progress in last two years

Over nine billion dollars spent in the war construction program, including $115,000,000 for the Alaska Highway

In his biennial report, issued on Sept. Gen. George C. Marshall, Chief of of the Army, revealed that 5,000,000 ed men have been inducted into Army during the past two years, and the officer corps grew from 92,000 to 00. These figures include 182,000 s and 1,906,000 men in the Army Forces.

particular interest to engineers are portions of Gen. Marshall's report g with the construction program the Alaska Military Highway, as s:

Construction program

March 31, 1943, the war construcrogram, under the Corps of En-, represented a total cost of $9,-4,000, of which $2,588,000,000 was ound and service forces facilities; 510,000 for industrial facilities 2,503,096,000 for air forces con-on (the balance went to miscels projects).

is program called for acquisition 139,098 acres of land at a cost of 39,132. More than 1,000,000 persons worked on the program at its peak in July, 1942; the figure dwindled by March, 1943, to somewhat more than 350,000, at which time 75.8 percent of the authorized projects were completed, an addititonal 6.4 percent ready for use, and 17.5 under construction. Only 0.3 percent had not been started.

The "Alcan" Highway

"By the end of October the last gap was closed on the 1,480-mile pioneer road to Alaska, which had engaged approximately 10,000 Engineer troops in its construction.

"Improvements currently under way provide for a twenty-six-foot roadbed width, with surfacing placed to a width of from twenty to twenty-two feet. Local materials, including gravel and crushed stone, will be utilized in this surfacing. It is estimated that the cost of constructing the pioneer road, together with improving it to present proposed standard, will be $115,000,000, which figure includes the replacement of a considerable number of temporary structures destroyed during the last spring's thaw."

Current highway work in four states

bama—A minimum highway main-e program is outlined by the Ala-State Planning Commission in a ly released monograph covering a of the state highway department.

mated minimum maintenance costs for 1943, $1,990,520; for 1944, 940; for 1945, $2,501,220, and for 2,726,600.

planning board enumerated the ng findings concerning mainte-

hat very little reduction in cost made in surface, shoulder drain-ts, fills, and bridge maintenance.

hat roadside cleaning and traffic work can be considerably reduced.

hat additions and betterments be eliminated, except for bitumin-reading operations.

hat bituminous roads must be re-when necessary, the number of f retread each year to be: 1943, iles; 1944, 501 miles; 1945, 803 and 1946, 990 miles.

hat every effort should be made the concrete roads in operation ching them.

hat unpaved road surfaces should ntained by patching and machining but that no resurfacing is necessary.

7. That pro rata share of maintenance overhead will increase as construction activities decrease, despite all practical retrenchment.

8. That equipment on hand will be sufficient for all maintenance needs, if properly maintained.

9. That the highway department's use of convict labor is relatively cheap and efficient at present, compared to free labor, and should be used as much as possible.

10. That the most critical labor shortage will be of mechanics and machine operators, and that a special effort should be made to retain those now employed.

11. That traffic volume of less than 2,000 vehicles a day has very little influence on ordinary maintenance cost. Over 90 percent of state roads are in this category.

Iowa—The annual report of the Iowa state highway commission states that construction on Iowa's primary road system was cut about in half during the fiscal year ended June 30.

The drop was from $7,353,599 to $3,654,242. The report showed only 32.35 miles were paved, 28.46 miles graveled and 24.73 miles graded, as compared with 90.8, 171.1, and 133.9 miles, respectively, in the 1942 fiscal year.

Most of the 1943 work was on access roads to arms plants, airports and other federal establishments. The federal government contributed 83.75 percent of the amount spent.

Primary road fund revenues were $18,345,858, a decline of about three million dollars from the previous year.

Arkansas—Governor Adkins has revealed that a state highway program has been planned that will call for an investment of $60,000,000 and include completion of hard surfacing of five highways in the industrial region of South Arkansas.

The governor said that part of the program already had been approved by federal agencies, and that federal participation on a 75-25 percent basis virtually is assured.

"All of our highway department resources for a time had to go into building access roads to our war production facilities," said the governor. "This work is practically finished. We are now compiling an extensive highway program to be begun just as soon as war-hampered federal agencies give us the go ahead.

"Already we have submitted to the Federal Public Roads Administration advanced engineering projects totalling $14,900,000. This partial program has been approved. The Highway Commission has adopted for submission to PRA another program totalling $21,800,000. Its approval is assured. In addition, we are laying out another $25,000,000 in planned projects."

California—The State Division of Highways spent $82,093,000 during the 1941-1943 biennial period which ended June 30, according to an announcement made by State Director of Public Works Charles H. Purcell.

Only $63,213,000, however, was expended on strictly state highway work, the rest being federal money for access road projects, both on and off the state highway system, and construction of flight strips for the U. S. Army. This compares with $72,714,300 expended on State highways in the previous biennium.

The director said that preparation of plans for proposed highways to be constructed in the post-war period is rapidly becoming a major part of the work of the division of highways.

Purchasers hereafter are to make application for restricted western lumber only after being assured by the producer that their orders can be filled. A revised application Form WPB 2720, formerly PG-872, has just been issued by WPB which is designed to simplify and speed up action.

MEN AND JOBS

Glen J. Hopkins, U. S. Public Health Service, has been assigned to the State Board of Health at Mitchell, S. D., where he will serve as director of the division of sanitary engineering. Prior to receiving his new assignment Hopkins served three years as assistant state public health engineer in the Missouri State Health Department. He is a graduate of the University of Missouri with post-graduate work at the School of Public Health Engineering at the University of Michigan.

Maj. William C. Campbell of the Army Engineer Corps, for two years area engineer of the Ozark Ordnance Works at El Dorado, Ark., has turned his command over to **Capt. Thomas A. Cantrell** and will report to Fort Leavenworth, Kan., for a ten weeks course of study in the Army Service Forces School of the Command and General Staff. Captain Cantrell is also area engineer for the Dixie Ordnance Works at Monroe, La.

Commissioned a captain in the Engineers Corps, **Robert R. Dawson,** Bloomfield, Ky., will report for duty soon to Camp Claiborne, La. A former road contractor, Captain Dawson attended the University of Kentucky.

In Alaska almost a year, Pfc. George W. Distler, Jr., of Louisville, Ky., is with the Combat Engineer Corps. Formerly he was in the contracting business.

Sam C. McNeill, of Waco, Tex., foreman of the runway gang that helped construct the Blackland Army Air Field at Waco, is now serving in Burma as staff sergeant with the U. S. Army Engineers.

Charles S. Stevenson, city engineer at Portsmouth, Ohio, for the last 20 years, has resigned to join the army, with a captain's commission.

Lieut. Walter B. Little, assistant area engineer for the U. S. Army Engineers at Wenatchee, Wash., has been promoted to the rank of captain.

Robert B. Anderson, formerly assistant city engineer of Lewiston, Ida., has accepted a position as sanitary engineer at the Farragut naval station in Idaho.

Governor E. P. Carville of Nevada has announced the reappointment of **Alfred M. Smith** as state engineer for Nevada for his third four-year term.

Wendell T. Hedgcock, formerly technical director of the Denver, Colo., Housing Authority and more recently with the Federal Public Housing Authority, will serve as project manager for the architectural-engineering firm of T. H. Buell & Co., Denver, Colo., during the construction of the Modification Center in that vicinity.

William F. Weaver, former city engineer at Asheville, N. C., has been promoted to the rank of lieutenant commander in the United States Naval Reserve at the Charleston, S. C., Navy Yard.

Cameron Waddell Lee, of Asheville, N. C., has been promoted to the rank of lieutenant (jg) from that of ensign in the United States Naval Reserve at the Charleston, S. C., Navy Yard. A graduate of the University of South Carolina, Lee formerly was employed as a civil engineer with the North Carolina Highway and Public Works Commission at Andrews, N. C.

John Franklin Nicoulin, member of the firm of Hays & Nicoulin, building contractors, has been commissioned a captain in the Army Engineer Corps, stationed at Fort Eustis, Va.

Leonard M. Pickford, of Asheville, N. C. engineer property officer at Camp Butner, N. C., has been promoted to the rank of captain from that of first lieutenant.

William A. D. Wurts, assistant city engineer of Hartford, Conn., has been commissioned a captain in the U. S. Army. Capt. Wurts has been associated with the Hartford Department of Engineering for 18 years and has served six years as assistant city engineer. In the army, Capt. Wurts will be with the Sanitary Corps. **Willard S. Brewer,** senior division engineer in charge of construction, will serve as assistant city engineer during Mr. Wurts' absence.

Alabama Highway Director G. R. Swift has announced the appointment of **George W. Phillips** as chief engineer of the consolidated bureaus of construction and maintenance in the highway department. William Herzberg, chief construction engineer, died recently and Mr. Phillips has been acting chief engineer. **S. E. Caudill** is the new first division chief engineer.

Marcel Garsaud has resumed his consulting practice with offices in the American Bank Building, New Orleans, La. His work is engineering, terminal operation, industrial development and organization and management.

Col. Carl H. Jabelonsky, district engineer of the Denver, Colo., district, has announced the assignment of **Capt. Ford D. Loveland** as area engineer for [illegible] Field, Buckley Field, Fitzsimmons General Hospital, Fort [illegible]gan, Camp [illegible] West, and the Denver [illegible]edical depot, the transfer from the Denver district Major Karl W. [illegible]und. Captain Loveland was area engineer at Buckley Field until September 10, 1942, when he commissioned a captain in the [illegible]. Prior to going to Denver, he was connected with the Omaha district office river and harbor work.

Governor Sam C. Ford, of Montana, appointed **A. W. Heidel** of Broadus reappointed **Walker Phillips** of the Montana State Highway Commission. They will serve four-year terms.

Capt. H. G. Simpson, Corps of Engineers, has been promoted to the rank of major. He was one of the first officers at the Pine Bluff, Ark., arsenal and is ranking officer in the Area Engineering Section. He was formerly construction quartermaster at Fort Snelling, Minn. During the first World War he was a second lieutenant of engineers with an aerial photography and mapping battalion. In civil life he was a highway construction engineer for the Kansas Highway Commission.

Harry St. George Tucker Carmichael, Jr., of Charleston, W. Va., who studied civil engineering at Virginia Military Institute and business administration at Harvard University, has been chosen by the Virginia State Planning Board as supervising engineer in charge of public works in connection with postwar planning. Mr. Carmichael, after being an instructor in civil engineering at V. M. I., was with Federal Public Works from 1933 until 1939. In 1940 he went to the University of Virginia to have charge of the construction of a $500,000 library. Later he joined Wilson, Dell & Watkins, contractors of Lexington, Ky., and was placed in charge of work in connection with a $10,000,000 project at Corinth, Miss., for the United States Army. He assumed his new duties in Virginia this month.

H. V. Appen has been elected vice president of the J. A. Jones Construction Co., Charlotte, N. C. He will be in charge of some of the large construction projects handled by the Charlotte office.

C. F. Griggs, County engineer at Spokane, Wash., for the last six years, has been granted military leave of absence to become captain in the Engineering Corps. Before entering county employment several years ago as chief deputy engineer, he had been a construction engineer with the Diamond Match Co. To fill the position of county engineer, **Ross State** was promoted from chief deputy, with **Jim Much** appointed to the latter post and **Richard Schubert** named assistant engineer.

ASHINGTON IGHLIGHTS

ew indication of the near-comple- f the war-construction program is in a statement by the Office of Administration to the effect that has been "a change away from the tration of lumber in a few centers ge projects, and toward diffusion ll quantities of thousands of in- l users, particularly for boxing ating."

ring 1942," the statement says, rincipal lumber distribution prob- s that of bringing huge quantities ber for construction purposes to where cantonments, storage ware- , aircraft factories and the like eing built.

1943, boxing and crating has over- ed construction as a source of de- for lumber."

rder to insure that no uncontrolled of repair parts for construction ent leaves this country, the War tion Board has issued Interpreta- to Limitation Order L-192. The retation points out that though s in this country are not required in WPB authorization to purchase parts for their own stock or in- , they must do so for shipment re outside the continental United This provision is effective even such dealers ship to their own offices, and even though such offices may be located in U. S. ries.

e repairs and maintenance alone, ve of all new construction are ated by the National Housing in a possible volume of one bil- llars soon after the end of the n some places there will be such a home building that there may be tage of building trades labor.

rder to determine the prospects in s well as other construction mat- he FHA under its commissioner, H. Ferguson, has launched h its field offices a survey of prob- ost-war demand for new privately d housing, availability of sites on developed and undeveloped land, e likely supply of builders, labor, ls and equipment.

importance of prompt resump- f large-scale building operations he war points to the wisdom of advance preparations for the ar market," Mr. Ferguson says.

National Labor Requirement Com- has been set up by the War Pro- n Board. What action it may take to stimulate the shifting of construction labor to production plants remains to be seen. The new committee will make use of War Manpower Commission field studies and will set up its own local committees in areas of crucial labor shortage. Its recommendations will be made to the WPB.

Clinton S. Golden, WPB vice chairman for manpower requirements, heads the committee, which includes representatives of the following agencies: WPB, WMC, War and Navy departments, Maritime Commission, Petroleum Administration, Aircraft Resources Control Office, Office of Civilian Requirements, Office of Rubber Director, and Office of War Utilities. The local committees will be made up of field representatives of these agencies.

Declaring that much of the proposed post-war federal building program has yet to be authorized by Congress, and that much of it is incompletely planned, Maj. Gen. Philip B. Fleming, administrator of the Federal Works Agency, stated in an address before the New York State Federation of Labor meeting in Buffalo recently that "It is estimated that only about 600 million dollars could be spent on the federal program in the first year after the war."

Aside from a Federal-aid road building program of several billion dollars for which plans are actually being made, he said that "with certain notable exceptions, of which New York City and State, California, and a few others are examples, the country is not yet preparing to redeem the promise of full employment."

"An adequate post-war program of public construction, in my opinion," he said, "will include these characteristics:

"Thousands of projects should be prepared by federal, state, and local governments.

"Where legislative authority is required, that authority should be obtained now. Sites should be obtained as quickly as possible for projects that will be most urgently needed at the end of the war. The engineering surveys should be undertaken now, and the preparation of drawings and specifications started at the earliest possible moment."

Wide World photo

Waterloo bypass bridge is being dismantled

A London bridge is coming down. And a good thing it is, too, in the opinion of Londoners who have had to look at its ugly outline for well over five years during which it served as a bypass for traffic while a new Waterloo crossing of the River Thames was being built to replace John Rennie's famous stone arches. Removal of the steel trusses of the bypass bridge will also permit the graceful silhouette of the new concrete bridge alongside to be seen as its designers intended it should be. The new bridge is of unusual type and boldness, consisting of five 240-ft. hollow girder spans arranged in a series of anchors, cantilevers and suspended sections. The girders have a curved bottom flange, so that their 25-ft. depth at the piers is reduced to only 7½ ft. at the center of the spans. It was only by the use of welded splices that the large amount of reinforcing steel necessary to effect this shallow construction could be crowded in.

The new bridge was designed by Rendel, Paloner and Tritton, appointed by the London County Council in association with the Council's chief engineer, Sir Pierson Frank. Sir Giles Gilbert Scott was the architect and Peter Lind & Co., Ltd., the contractor.

Cincinnati Expressway Soon to be Complete

One of the outstanding highway construction projects of the Ohio Department of Highways is a through-traffic access road from Cincinnati to a big war plant at Lockland, Ohio. The project, which has come to be known as the Lockland Freeway, is rapidly nearing completion.

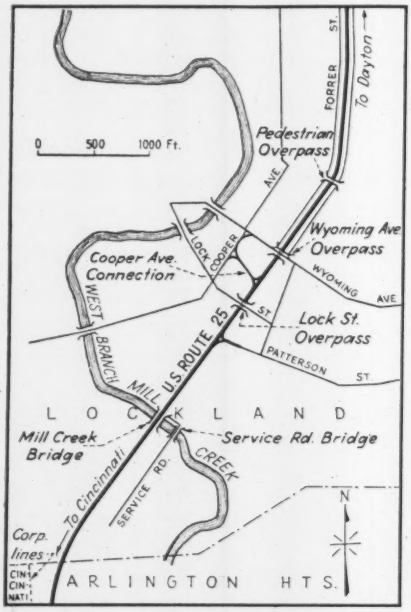
This highway is unique in that it is being constructed on the bed of the old Miami and Erie Canal. The waterway was built more than a century ago and served its purpose for a long period of years before being abandoned in favor of more modern methods of transportation.

The new freeway is 2.2 miles in length. It extends from Shepherd Lane in Lockland to Hartwell Ave. in Cincinnati, and comprises two 24-ft. lanes of concrete pavement separated by a 4-ft. paved median strip.

Work on the project was started June 3, 1942, and by Sept. 1 of this year it was about 85 percent completed, the section from the war plant to Cooper Ave. being open to traffic.

In the earlier stages of the work some difficult problems were encountered in that it was necessary to remove three locks of the old canal. These locks had been constructed of stone masonry on hewn timber grillages. Removal of these locks by blasting was not permitted, due to the nearness of adjacent buildings. Thus, it was necessary to break up the old foundations either by drilling holes and using plugs and feathers or by use of a 2,700-lb. "skull cracker."

Adequate width for the highway within the old canal right-of-way was obtained by substituting retaining walls for the sloped canal banks where the ca... was restricted. These walls, which v... from 5 to 30 ft. in height, are of gra... type and are about 2,500 ft. long. T... are being constructed in alternate ... tions, as shown by an accompany... photograph.

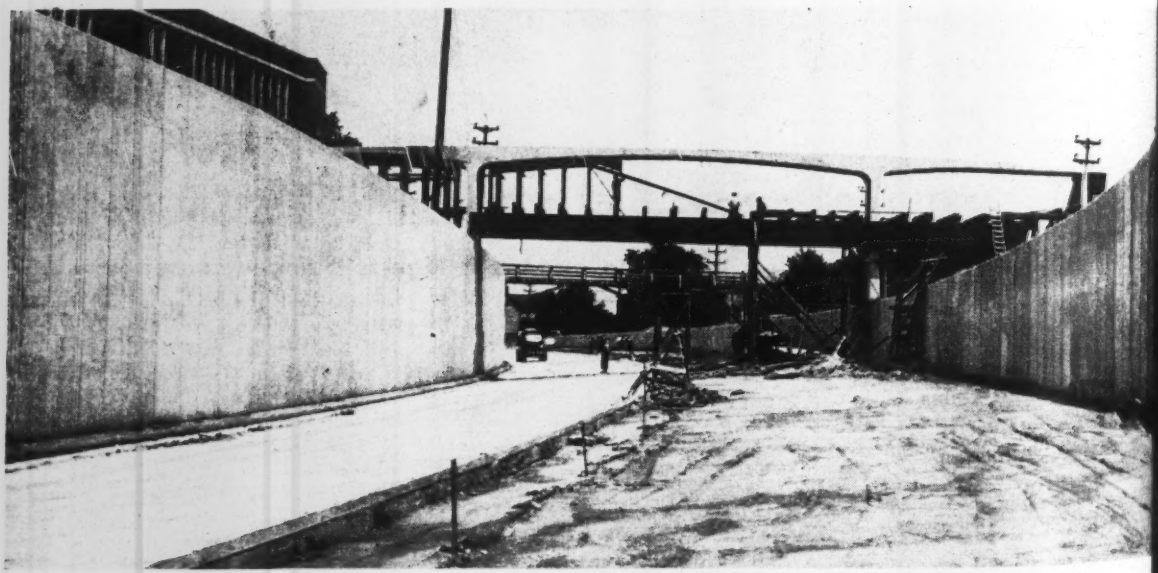


Built along the bed of the old Miami and Erie Canal, the Lockland Expressway provides access to war industries in the town of Lockland.

Five bridges also had to be built. Th... included: A concrete, rigid-frame pe... trian overpass, which crosses the free... into Lockland school; a concrete-sl... bridge to carry Wyoming Ave. over ... expressway; a concrete-slab bridge ... the service road parallel to the ac... highway; a rigid-frame crossing over ... freeway at Lock St.; and a concrete sl... and-girder bridge over the west fork ... Mill Creek. Construction of most ... these structures is illustrated by the ... companying photographs.

A $1,060,000 general contract for ... Lockland Freeway was awarded to ... Byrnes-Conway Co., Bernard, Ohio, ... 19, 1942. Subcontractors include: ... Richter Transfer Co., Cincinnati, wh... is doing the grading work, and O'Con... & Sweeney Co., Cincinnati, the pav... contractor.

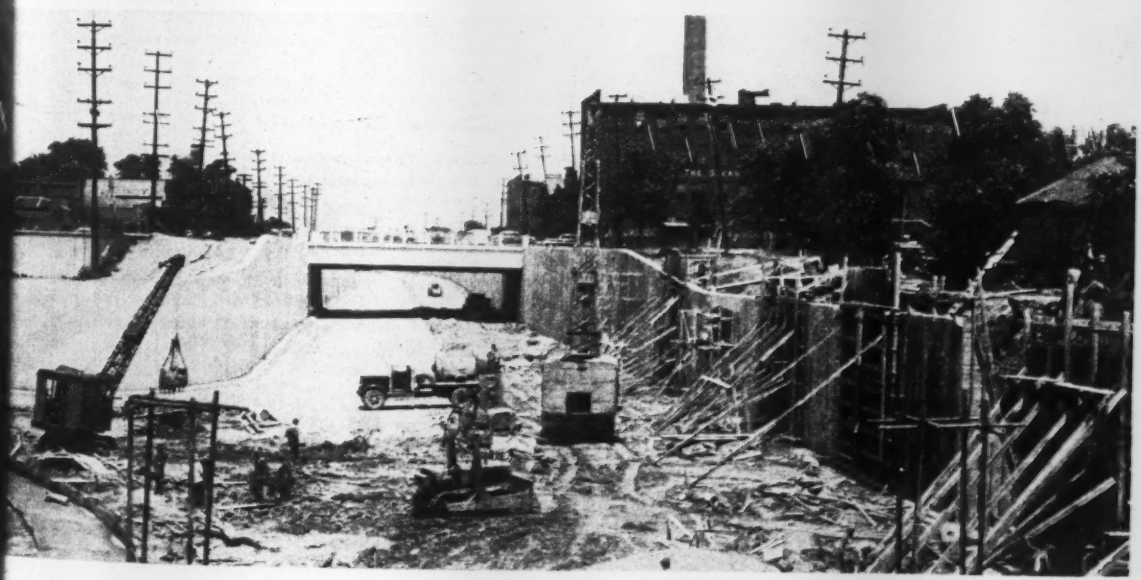
Plans for the bridges were prepa... under the supervision of W. S. Hindm... chief engineer of bridges and railro... crossings for the Ohio Department ... Highways. P. S. Bookwalter is divis... engineer at Cincinnati for the departm... and Roger L. Towle project engineer. P... Hickey is general superintendent for ... Byrnes-Conway firm.



Near the northern limits of the project a rigid-frame reinforced-concrete pedestrian overpass is nearing completion. T... entire width of 56 ft. between the retaining walls will be free of piers.

of the pedestrian bridge shown on the opposite page the expressway emerges into open country where walls are not ary. One 24-ft. lane is shown complete and the second under construction in background.

St. in Lockland is carried over the expressway by a reinforced-concrete, rigid-frame bridge with a span of about 60 ft.



w looking north from the Lock St. Bridge shows the Cooper Ave. connecting street branching off from the express- t the left. The bridge carrying Wyoming Ave. over expressway is shown in background.

Our Engineer Generals

(*Continued from page 7*)

pared the Manual for Topographers, Philippine Department, which has formed the bible for all public works done there since.

In the World War, General Lee served with the 89th Division as Chief of Staff, his citation for the Distinguished Service Medal emphasizing his brilliant work in both the St. Mihiel and Meuse-Argonne offensives. He was also awarded the Silver Star for "gallantry in action near Richecourt, France, on the night of July 12-13, 1918, while leading a patrol which penetrated the enemy lines." Returning to the U. S., he became one of the Corps outstanding officers on flood control operations, while finding opportunity to spend more than the normal amount of time with troops. His special abilities as a soldier were recognized when he was assigned to command the 2nd Infantry Division at Fort Sam Houston on October 28, 1941, an unusual honor for an Engineer officer. He left this post in May, 1942 to come to England as chief of the SOS.

Engineers and construction men know General Lee best as an authority on flood control and river and harbor work. He was district engineer at Vicksburg from 1926 to 1931 when the whole Mississippi flood control policy was undergoing change. He fought the great 1928 flood from there, and was instrumental in developing many of the schemes that have since been built to eliminate the threat of another Lower Valley disaster.

From 1934 to 1938 General Lee was district engineer at Philadelphia, and from May, 1938 to October, 1940, he was division engineer at Portland, Ore.

In every place he served he endeared himself both to the officers under him and to the town's citizenry, bringing great credit upon the Corps of Engineers. In his present job, he is only repeating this process, but on a grander scale, and with the credit for his achievements redounding to the benefit of Americans everywhere.

• • •

All 254 Texas counties will have surfaced roads

An appropriation to build a surfaced highway into McMullen County, last of 254 Texas counties without such facilities, has been made by the Texas Highway Commission.

The improvement will be part of a 33-mile project on State Highway 173 from Jourdanton, Atascosa County, to Tilden, McMullen County, in southwest Texas. When completed, all county seats in the state except one will have a paved highway connection. The remaining one is Lipscomb in Lipscomb County, the edge of the Texas Panhandle.

JOBS OF THE WEEK

HOUSING, California

Robert E. McKee, Los Angeles, Calif., will construct housing (Calif. 4735 and 4736 for Public Housing Authority, San Francisco, Calif. Cost is $989,100. Corlett Housing Architects (George Adams, William T. Johnson, Theodore Criley, Graham Latta and William Lodge) Glendale, are architects.

HEAT TREATING and PROCESSING PLANT, Wisconsin

Klug & Smith Co., Milwaukee, Wis., has been awarded a contract by Ladish Forge Co., Cudahy, for 1 story, 200x300 ft. reinforced concrete and brick heat treating and processing plant. The estimated cost including equipment is $1,600,000. The contractors are also engineers on the project.

ROADS, Arizona

U. S. Engineers, Los Angeles, Calif., will construct a road in Coconino County. Basich Brothers, Alhambra, Calif., have been awarded the contract for the work at $600,000 to $700,000.

BUILDINGS, Colorado

Maxey & Leftwich, Lubbock, Tex., have been awarded schedule 2 for buildings and other work in Weld County at $752,000. Blanchard Brothers Co., Cheyenne, Wyo., received the contract on grading, schedule 1, at $36,741. U. S. Engineers, Denver, Colo., let the contracts. Crocker & Ryan, Denver, are the engineers and architects.

RAYON CORD MANUFACTURING PLANT, Alabama

A. K. Adams Construction Co., Atlanta, Ga., was awarded a contract for a rayon cord manufacturing plant by Goodyear Tire and Rubber Co., Akron, O., at Decatur, Ga. The estimated cost is $600,000. Federally financed.

REHABILITATION OF RAILROADS, Mexico

National Mexico Railways, L. Reina, chief engineer, Mexico City, will rehabilitate railroads, including maintenance, laying heavier rails and improving ties. All work will be done by own forces at an estimated cost of $1,000,000. Margarito Ramirez is general manager.

HIGH SCHOOL, Bremerton, Wash.

Sound Construction & Engineering Co., Seattle, Wash., has been awarded the contract for a high school building by the School Board. The estimated cost is $[illegible]. Naramore & Brady, Seattle, are the architects. FWA.

HOUSING, South Carolina

Henry C. Beck, Atlanta, Ga., was awarded the contract for housing for Public Housing Authority, Washington, D. C. The cost is $1,012,700. Douglas Ellington, Charleston, is the architect.

HOUSING, Maine

Public Housing Authority, Washington, D. C., received the lowest bid from A. Bowen Construction Co., Boston, Mass., at $990,000. The work includes two housing projects. J. H. Stevens, Portland, is the architect.

HOUSING, Michigan

Miller-Davis Co., Kalamazoo, Mich., has been awarded a contract to build houses by the Public Housing Authority, Cleveland, O., at $592,000. Otis Winn and Philip Brezner, Highland Park, are the architects.

SEWAGE DISPOSAL PLANT, Toronto, Ont.

City of Toronto, awarded a contract for a sewage disposal plant on Fisherman Island to Rayner Construction Co., Ltd., Leaside, Ont., at $1,791,697. Gore F. Smith, Toronto, is the engineer.

ROADS, Kansas

U. S. Engineers, Kansas City, Mo., awarded a contract to Northwestern Engineering Co., Rapid City, S. D., at $700,000. The work includes sub grade preparation, excavation, removing and replacing existing base course, and surfacing [illegible] on road in Montgomery County.

DWELLINGS, Houston, Tex.

Santa Rosa Corp., Houston, will construct dwellings, including garages, by own forces. The estimated cost is $1,000,000. Jack Knostman, Houston, Tex., is the architect. FHA will finance.

HOSPITAL, Evansville, Ind.

Gust K. Newberg Construction Co., Chicago, Ill., was the lowest bidder for constructing State Insane Hospital, including patients' building, administration building, and superintendent's residence. The total estimated cost is $2,500,000. Evansville State Hospital, Evansville, opened bids. McGuire & Shook, Indianapolis, are the architects. J. M. Rotz Engineering Co., Indianapolis, Ind., is the engineer.

Note—Additional bidding and contract news on many projects large and small appear in the Construction section beginning on page 18.

BRIEF NEWS

plus funds held by the Texas State for Registration of Professional eers may not be invested in war Attorney General Gerald C. held in a recent opinion. The has an appropriation of $60,000 er use in the establishment of engi- g libraries. The funds would be equally at Texas A. & M. College, e Station, Tex.; Texas Technolog- College at Lubbock, and the Univer- f Texas at Austin.

t part of the Alcan Highway that through Canada will become da's property after the war and e used as a part of the Dominion's ay system. Also the Fort Norman line to bring oil from the Mackenzie oil fields to Alaska will also be Canadian government property. ime Minister Mackenzie King im- d this information to parliament re- y when opposition members closely tioned the government regarding the of immense projects undertaken as se measures in northwest Canada oth Canada and the United States.

e Georgia State Highway Depart- has started a program for the im- te expenditure of about $831,000 in facing state highways, it was an- ced recently by State Highway Engi- George T. McDonald.

ghway traffic in North Carolina dur- July was 45.4 percent under that of 1941, according to James Burch, highway commission statistics and ing engineer. Electric eye recorders d in 20 of the state's 100 counties ded 624,900 vehicles using the high- during July as compared with 1,- 00 during the same month last

e city council of St. John, N. B., rganized a town planning commis- for its county, composed of 12 bers. Among them are J. E. Sugrue, mber of the international bricklay- nd masons union local; A. R. Crook- k, of the Engineering Institute of da, and assistant district engineer he Dominion public works depart- ; J. N. Flood, a general contractor ivil engineer; H. C. Mott, represent- he Architects' Association; G. E. C. y, a wholesaler in building and truction supplies; C. K. Beveridge, e insurance agent, and chairman of Civic Housing Commission, of St.

torney General Gerald C. Mann of s has ruled that county commis- sioners can condemn easements over railroad rights-of-way for a public road but not one that would be restricted to pedestrians. The ruling arose when the county sought to build a foot road over the Texas & Pacific Railroad tracks at the North American aviation plant at Grand Prairie, Tex., for employees at the plant. A compromise was reached when the railroad agreed to build a pedestrian overpass over its tracks in front of the North American plant to join an overpass to be built by the county over adjacent Jefferson Boulevard.

Circuit Judge L. L. Fabisinski, at Pensacola, Fla., has validated Escambia County Bridge revenue bonds in a decree which marks another step in the purchase of the Pensacola Bay and Sound bridges, and the lifting of present tolls. The price set for the bay bridge is $1,345,000.

Because a cut of $36,000 quarterly has been made in the salary budget of the Connecticut State Highway Department, Commissioner William J. Cox will retire 70 full-time employees for the duration of the war. He explains that those retired will go on the reemployment list, and it is hoped all can be returned to the payroll when the war is over. Many will be taken from the engineering and construction divisions of the department because their activities have been greatly curtailed by the war.

The St. Louis Vital Area Defense Board has recommended that the Federal Works Agency grant $1,000,000 to nine sewer districts in St. Louis County, Mo., to supplement the $100,000 in funds now held by the district so that their sewer projects now in various stages of construction may be completed. The districts that received approval are: Curtis, Jennings-West Walnut Manor, Carsonville, Walton Road, South Lackland, Melrose, Normandy, Affton, City of Kirkwood, St. Johns, Overland, and Hanley-Page.

A gleaming strip of beads down the center of the Oregon Coast highway from the California state line to the Washington state line will aid motorists under dimout conditions, Oregon State Highway Engineer R. H. Baldock has revealed. He said the striping would start immediately, using a paint mixed with a type of reflector beads imported from Czechoslovakia before the war.

A Texas law providing for the exchange of highway engineers with Mexico became effective Aug. 10. The law is a practical experiment in the good neighbor policy. It provides for the employment of five graduate or student Mexican engineers for six months by the Texas Highway Commission, In exchange Mexico will employ five Texas highway employees who are given leaves of absence by the state.

Michigan State Highway Commissioner Charles M. Ziegler has announced that contracts have been entered into with the Delta and Missaukee Road Commissions for trunkline maintenance effective Sept. 1. Both county road commissions have satisfied the department that they are able to meet the rigid terms of the contracts.

The maintenance agreement can be cancelled on 30 days notice by the department if at any time it feels that the work is not being carried out satisfactorily.

This makes a total of 37 Michigan counties under contract to the state highway department for the maintenance of state and federal trunklines within their borders.

The recent completion of the new filter unit at the McNeil St. pumping station of the Shreveport, La., waterworks means that 3,000,000 mgd. will be added to the city's water supply, Utilities Commissioner James S. Reily says. Funds for the project were provided by a federal grant of $150,000 and an additional $30,000 from the city.

Plans for the completion of a highway loop around Dallas, Tex., have been almost completed. They await only the signing of a contract between the state and Dallas County officials. The state, according to State Highway Engineer D. C. Greer, will complete the loop and maintain it.

The county's part in the transaction will be to pay any outstanding bonded indebtedness and provide the right-of-way. The portion of the loop the state will complete will cover about 19 miles and cost $1,000,000 or more.

Twenty well-known industrial leaders have been appointed to the Advisory Board of the Producers' Council, the national organization of manufacturers of building materials and equipment, according to an announcement by Douglas Whitlock, the council's president. Chairman of the group is Stuart M. Crocker, vice president of the General Electric Co., New York, and an additional member is Raymond J. Ashton, president of the American Institute of Architects. As the principal advisory group guiding the activities of the Council, the board will play a prominent part in planning for postwar construction to which that organization and other factors in the construction industry are devoting major attention. J. W. Follin, managing director of the Producers' Council, has announced that the new advisory board will hold its first meeting early in the fall.

Construction Communiques

Engineering News from the Battlefronts

North Africa—Lt. Edwin M. Lutz whose home is in Newark, N. J., was awarded the Croix de Guerre by the Corps Franc D'Afrique recently. His citation read:

"A commanding officer of the American Engineers, in every way remarkable. Put at the disposition of the Corps Franc D'Afrique for the battle which led to the taking of Bizerte, proved himself to be of a tranquil courage and great intelligence in all combat situations.

"Demonstrated unceasing activity and succeeded in assuring, through extraordinarily difficult terrain, the passage of troops through minefields where there were no roads, and evacuated wounded in the same way."

New Georgia—When the Marines landed on New Georgia Island to drive out the Japanese, they were met by a Seabee officer and the greeting, "the Seabees are always happy to welcome the Marines." To which Lt. Col. Michael Currin, Marine Commander could only reply, "Well, I'll be damned."

The welcomer was Lt. Bob Ryan of Ventura, Cal., Naval Construction Battalion engineering officer and Ventura County engineer before the war. Lean, gray-haired Ryan, who looks like an amiable professor even in high rubber boots and khaki shorts had been one of a party that had scouted the Japanese-controlled jungle of southern New Georgia and surveyed the airfield site in anticipation of the coming of the Marines.

And with the Marines came more Seabees equipped with bulldozers, power shovels and trucks. The construction battalion workers, mostly recruited from Texas and Oklahoma contractor outfits, started tearing up the jungle just as soon as they hit the beach. Nine days from the time the first tree was uprooted, a fighter plane made an emergency crash landing on the coral runway strip laid down under direction of Lt. Comdr. John Lyles of Wagoner, Okla. Meanwhile, the Marine raiders had pushed on to Viru Harbor, sweeping enemy outpost forces before them.

Alaska—When the work of completing a big fill on an army project near Valdez seemed to be slowing down because of the shortage of dump trucks, the soldiers solved their problem with typical Yankee ingenuity.

Powerful 10-wheel trucks were loaded with gravel and driven to the fill, where a perambulating hoist converted each big vehicle into a dump truck by the simple trick of lifting the front end high into the air. The hoist even gave the truck a shaking, if necessary, to empty the bed. The fill was completed in record time with only one accident—the hoist chain broke once, dropping a truck to the ground and cracking an axle.

Attu—Army Engineer roadbuilders criss-crossed Attu with tractor trails that in less than three weeks marked the island as definitely American. Under fire they built more roads than the Japanese had previously built in the eleven months they occupied Attu.

Tractor-drawn trailers provided the means for getting supplies from the beachheads to the troops inching up the mountain sides. Equipped with such machines, Engineer troops found difficult routes possible to them. Near Massacre Bay they used a gravel streambed as a principal supply route. Elsewhere they used their ubiquitous bulldozer to cut away the soft soil down to a fairly firm road bed.

With the trails twisting around the many small ridges, the tractor drivers had to violate one military rule. Instead of keeping low they were often forced to stand up to see over the earth bank obscuring the traffic ahead. One cat-skinner delivering ammunition was cussing out Yank artillerymen for the shell fragments dropping around his machine when he found that the shells were Japanese, not American. He had run his tractor right into the front lines. The next improvement Engineers suggested for their tractor bulldozers is a machine gun mount; they already do everything but shoot.

Florida—The advance patrols found the going heavy. The ground was covered with palmettos, scrub brush and trees. But supplies had to be brought in by air, and the order was to build an airfield.

The 841st Engineer Aviation battalion moved up. Carrying Garand rifles and full packs, they began to clear the ground. "Enemy" aircraft located them and made life miserable with strafing and bombing attacks.

The engineers carried on, in shifts around the clock, a good part of the time at the double. And in just 35½-hr., a 4000-ft. perforated metal runway lay on level ground, ready for bomber, fighter or transport.

It wasn't real warfare, of course—only simulated battle conditions over flat Florida brush country. But it was good enough for training the 841st to build real fields in real battle zones anywhere in the world.

The battalion is under the direction of Lt. Col. Frank Miller of Chicago, standing authority on construction metal plank runways. He has built on Midway, at Canton, in New Caledo and in other hot spots. Now he's bac teach others how to do it. The me this battalion have not known the lu of barracks since the activation of unit. They haven't eaten in a mess in nearly six months, and they spent countless nights under strict bl out conditions and many days under sistent "air attacks."

On the high seas—Members of a bee battalion recently received individ letters of commendation from the Bu of Naval Personnel for their work in pairing a transport while at sea. men were part of a detachment of bees bound for a distant port. When ship was seriously damaged, they imm ately turned to shoring up a tempo bulkhead enabling the vessel to cont

The letter read in part: "You sonally endangered your lives in orde save the ship and the troops aboard and your unselfish, courageous cond on this occasion was in keeping with best traditions of the Naval Service."

Idaho—According to the Associ Press, the new Mountain Home army base, now about ready to be turned to the Air Corps, is almost lost on flatness of the wide Snake River va of south central Idaho—25 miles to nearest mountain and a good 15 miles the nearest tree.

"There may be larger air bases, I've never heard of them," says Major A. Lewis, Boise-Pocatello area engin for the Corps of Engineers, who su vised construction, assisted by Ma William D. Alexander, resident engin

So immense is the accomplishment so urgent was the necessity for sp that the contractor, J. A. Terteling Sons, of Boise, and the corps adop production line methods, using so m mechanized equipment that only 4 men were employed.

Grading and leveling of the runw started last December. With temperatu down to 10 below zero, the contrac found it difficult to use water compacting the earth. So the engine heated thousands of gallons of wa dumped truckloads of salt into a t hitched an engine to an agitator pumped the resulting brine into sprin ing trucks. They used 4,000 tons salt. The runways will be comple 20 to 30 days ahead of schedule.

Passamaquoddy, where in the thirties start was made on the project of harne ing the tide sof the Bay of Fundy to p duce electric power, has been turn over to the Navy as a training center Seabees.

OBITUARY

rge F. Hill, 79, former chief engi- f the New York City Department lic Markets, died Sept. 4. Born in rgh, N. Y., Mr. Hill attended New University. He specialized in indus- efrigeration work and designed the ration for the $16,000,000 Bronx al Market in New York City.

bert T. Gerrish, 57, president of rimount Dredging Corp., Boston, died at Brookline, Mass., on Sept. was native of Portland, Me., and raduated from the Massachusetts In- of Technology in 1906.

n Bacon Hutchings, Jr., 61, civil er, died in Asheville, N. C., Aug.

y Hardy Farnham, 65, supervisor ctures and bridges for the Boston ny Railroad, died Aug. 23 at Old Conn. Mr. Farnham had been em- by the Boston & Albany for the years.

ter A. Jones, 69, former chairman Pennsylvania Turnpike Commis- ied Sept. 3, in Washington, D. C. ones arranged the financing and ised the building of the $70,000,000 highway from Harrisburg to Pitts- He had recently expressed eager- renew efforts for extension of the highway westward to the Ohio ine and eastward to Philadelphia.

ed F. Hunsicker, 88, veteran build- tractor died in Akron, Ohio, Sept. his brother, Mandas he operated unsicker Bros. contracting firm, built many of the city's best buildings. He went to Akron from Pa., 70 years ago.

. Ridout, 46, construction engineer, London, Ont., Aug. 30. Born in a, Ont., and a graduate of the ity of Ottawa, Ridout helped su- construction of the Temiskaming rthern Ontario railway's extension Moosonee and was assistant mu- engineer at Timmins for many

ph G. Kuhn, executive vice presi- the Arundel Corp., and a leading lic and dredging engineer, died at re, Md., Aug. 31. In 1917 Mr. supervised the building of what en the country's largest drydock Philadelphia Navy Yard. He was sociated with the dredging of the ork Barge Canal in 1913 and the ction of a breakwater at Cape t, near Wilmington, N. C.

Road machinery pool plans in three states

A clearing house for construction and maintenance equipment used by cities, counties and the state highway department is being organized in Texas. With the equipment situation more critical, municipalities need machinery for short periods of time. They may also need replacements, which there is little possibility of obtaining because of shortages of raw materials.

The League of Texas Municipalities and the state highway department found an equipment pool would be advantageous in maintaining roads, streets and other public works for the duration. The clearing house will obtain statewide information concerning used equipment which might be rented, leased, borrowed or purchased for the repair work.

In Iowa also, plans are being studied for a state-wide pool on a basis similar to that in Maine where cities and the state highway department have been pooling their street and highway equipment for some time, and machinery which otherwise would be idle is being loaned or rented to communities where it is needed. Ample equipment was found to be available by the Maine Municipal Association, but proper distribution was found to be essential to insure all cities enough equipment for 1943 road work.

Communities in need of power shovels, heavy tractors, graders, rollers, etc., now apply to their municipal association for lists of such equipment available. All lending or renting of machinery between municipalities or between cities and the state highway department is done on mutually agreeable terms.

CONTRACTS AND CAPITAL

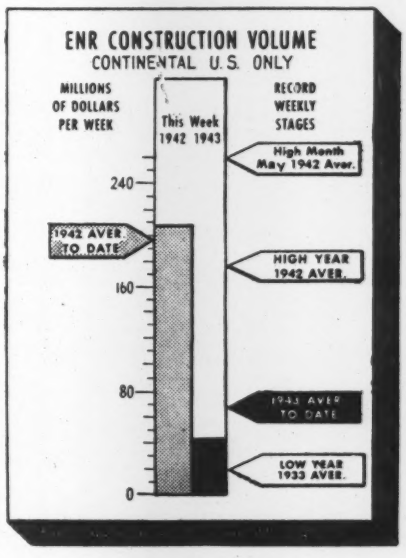
CIVIL ENGINEERING construction volume for the week in continental U. S. totals $43,332,000. This volume, not including the construction by military combat engineers, American contracts outside the country, and shipbuilding, is 79 percent below the total for the corresponding 1942 week, and compares with $36,606,000 for the holiday-shortened preceding week.

Private construction is 26 percent lower than in the week last year, and public work is down 81 percent. State and municipal work is 8 percent above last year, but federal volume declines 84 percent.

The current week's total brings 1943 construction to $2,365,700,000, an average of $63,938,000 for each of the 37 weeks of the period. On the weekly average basis, 1943 construction is 68 percent below the $7,484,907,000 reported for the 38-week period in 1942. Private construction, $302,953,000, is 33 percent lower than a year ago, and public construction, $2,062,747,000, is down 70 percent when adjusted for the difference in the number of weeks.

In the classified construction groups, gains over the short preceding week are in sewerage, bridges, industrial buildings, earthwork and drainage, highways, and unclassified construction. Bridge construction is the only class to top a year ago.

New capital for construction purposes for the week totals $333,000, and is made up entirely of state and municipal bond sales. New construction financing for 37 weeks of 1943, $2,929,488,000, is 68 percent below the $9,527,250,000 reported for the 38-week 1942 period.



CONTRACTS

Continental U. S. Only (Thousands of dollars)

	Week Ending Sept. 17 1942	Sept. 9 1943	Sept. 16 1943
Federal	$191,541	$27,641	$30,535
State & Municipal	6,072	2,266	6,579
Total public	$197,613	$29,907	$37,114
Total private	8,415	6,699	6,218
TOTAL	$206,028	$36,606	$43,332
Cumulative 1943 (37 weeks)			$2,365,700
1942 (38 weeks)			$7,484,907

Note: Minimum size projects included are: Waterworks and waterways projects, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

NEW PRODUCTIVE CAPITAL

	Cumulative 1942 38 weeks	1943 37 weeks
NON-FEDERAL	$560,352	$275,650
Corp. Securities	169,839	17,408
State & Mun.	178,358	98,109
R.F.C. loans	129,455	9,000
FPHA loans	.....	3,133
R.E.A. loans	.....	20,000
Fed.-Aid Hwy.	82,700	128,000
FEDERAL	$8,966,898	$2,653,838
TOTAL CAPITAL	$9,527,250	$2,929,488

ENR INDEX NUMBERS

Index Base=100	1913	1926
Construction Cost. Sept. '43	294.09	141.37
Building Cost. Sept. '43	231.20	124.98
Volume Aug. '43	119	52

CONSTRUCTION REPORTS

Compiled by Business News Department—Engineering News-Record, 330 W. 42nd St., New York
ELSIE EAVES, Manager *SCOTT McLEOD, Statistician*
(Daily service also available—Write for details)

WATER SUPPLY

PROPOSED WORK

Ark., Arkadelphia—A. T. Goodloe, mayor, City Hall, installing 2,200 ft. 10 in. main, moving, erecting 80,000 gal. tank and 75 ft. tower.

Calif., Glendale—Pump. plant, settling and aeration basins. $180,000. J. C. Albers, City Hall, engr.

†Ill., Braidwood—City Clerk, WW and distr. sys., etc. $15,800. **FWA.**

†Ill., Marion—City, H. L. Crisp, mayor, exten. water distr. sys., **FWA** 11-254. W. W. Miller, City Hall, engr.

Ill., Decatur—WW imprvs., incl. new clarifier, low-lift intake water pump and rehabilitation of present clarifying and mixing basins, $100,000; exten. water service and reinforcing and modernizing sects. WW, constructing 2 m.g. storage tank, raising horsepower of present boilers, installing low-lift pump, new limehouse with installation new lime and chlorine machines, $400,000. Warren & Van Pragg, Inc., Decatur, engrs. CD 8/30—ENR 8/2.

★**†N. Y., Niagara Falls**—Federal Works Agency, 101 Park Ave., New York, Zone 17, water supply facilities. $575,000. M. Pirnie, 24 W. 43 St., New York, engr. CD 9/9.

Ore., Silverton—E. K. Burton, city mgr., rejected bids Aug. 30, water storage dam on Abiqua Creek. CD 8/24.

†S. C., Hampton—Federal Works Agency, 20 5 St. N.W., Atlanta, Ga., W.W. exten. $56,500.

★**Tex., Houston**—J. Edy, city mgr., imprv. W.W., incl. drilling, developing several new wells, laying addnl. large mains, $5,000,000. Applying for FWA funds. Total est. $14,000,000. W. W. Horner, Shell Bldg., St. Louis, Mo. and H. E. Elrod, c/o City Hall, and J. Fugate, ch. eng. Water Dpt., engrs.

Tex., Houston—J. Edy, city mgr., laying 12 in. c.i. water supply main along Market St. Rd., $70,000.

Tex., Houston—J. Edy, city mgr., exten. water supply mains, $25,000; substituting larger water supply mains, $25,000.

†Tex., Port Neches—J. O. Herring, mayor, W.W. sys. imprvs., expansion, $88,000. **FWA.** J. B. Converse & Co., Inc., City Hall Annex, Port Arthur, engrs.

†Tex., Texas City—Galveston County water Control & Imprvt. Dist. 4, water imprvs., Tex. 41-596. $55,000. **FWA.** J. J. Rady, Insurance Bldg., Fort Worth, engr. CD 3/25—ENR 4/1.

†Washington—U. S. Eng., 800 3 Ave., Seattle, Zone, 4, well, Inv. 746, Grant Co.

†Washington—U. S. Eng., 800 3 Ave., Seattle, Zone 4, water supply sys., Inv. 742, Grant Co.

Ont., Allanburg—Thorold Twp., watermains, etc. $20,000. W. Lee, Allanburg, engr.

Sask., Moose Jaw—Municipality, water pipeline using concrete pipe reinforced with steel. A. W. E. Fawkes, City Hall, engr. CD 6/23—ENR 7/1.

LOW BIDDERS

La., New Orleans—Sewerage & Water Bd., 526 Carondelet St., Sept. 3, approx. 10,800 lin. ft. 2- to 6-in. c. i. watermains, Contr. 232-W, from Clement Betpouey, Jr. & Co., Canal Bldg., **$18,500.** CD 8/25.

Wis., Green Bay—City Water Comn., C. Centern, clk., Sept. 9, WW addns., reservoir and pump house, from Geo. A. Howard, Green Bay, **$34,728.** CD 8/21—ENR 9/2.

CONTRACTS AWARDED

†California—U. S. Eng., 74 New Montgomery St., San Francisco, reservoir, Spec. 990, San Francisco Co., to MacDonald & Kahn, Inc., 200 Financial Center Bldg., San Francisco. Est. under **$30,000.** Awarded 9/7.

†Calif., Pleasanton—Yards & Docks, Navy Dpt., 18 St. and constitution Ave. N.W., Wash., D. C., water supply sys. expansion, NOY 7172, to MacDonald & Kahn, Financial Center Bldg., San Francisco, **$76,079.**

†Florida—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, water distr., sewage collection and disposal sys., Neg-Jax-44-161, Orange Co., to Stansfield Constr. Co., 5115 Bayshore Blvd., Tampa, Zone 6, under **$25,000.** Awarded 9/6.

†Florida—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, water service lines, sewer pipe, water distr. lines, furnishing, installing gate valves, etc., Contr. 436-Eng-10599, Sumter Co., to Saine Co., Inc., 4511 French Ave., Jacksonville, **$30,000.**

Location of ENR Correspondents

Symbols and Abbreviations Include:

† Federal Government
★ Project of $500,000 or over
ENR Engineering News-Record
CD Engineering News-Record Construction Daily
A-E-M Architect-Engineer-Management type of contract

Projects—By Size

Construction projects here reported cover the United States and Canada, are of these minimum sizes or larger: water supply, earthwork, waterworks, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

Classes of Construction

(Named in order of Listing)

Water Supply	Unclassified
Sewers, Waste Disposal	Latin America
Bridges	Public Buildings
Streets & Roads	Commercial Buildings
Earthwork, Waterways	Industrial Buildings

Stages Reported

PROPOSED: (except Streets & Roads):

BIDS ASKED (new announcements only. For full calendar, see also preceding issues of ENR); LOW BIDDERS: On jobs below $500,000 value all low bidder news will be the final reports published on the projects involved except where award is not made to the low bidder. In this case, a supplementary contract award report will be published.

CONTRACTS AWARDED: Except awards to low bidders previously reported in low bidder stage.

Dates shown are of issue in which last previous report was published.

Note: To comply with censorship requirements, addresses on some reports are being generalized. Data which would reveal the purpose of the improvements and the size are withheld. The name of contractor and general area are reported.

N. J., Paulsboro—Socony-Vacuum Oil Co., concrete, brick filtration plant with concrete brine tank and pump, filter beds, to Charles H. Schwertner, 1505 Race St., Phila., Pa., **$250,000.** CD 8/25—ENR 9/2.

†Ohio—U. S. Eng., 522 Federal Bldg., Cincinnati, water facilities, incl. filter units, precipitation basin, sedimentation basin, collector wells, macadam roadway, Ottawa Co., to Mosser Const. Co., 219 S. Front St., Fremont. Bids 9/1.

†Tex., Houston—J. C. McVea, supt. Waterworks, WW sys. imprvs., Schwekert St. mains. Tex. 41-564, force account. Approx. **$15,000. FWA.** C. L. Fugate, Houston, engr.

†Washington—U. S. Eng., 800 3 Ave., Seattle, Zone 4, installing pumps, Pierce Co., to J. F. Graham, 808 N. Ainsworth St., Tacoma, **$20,000.**

†West Virginia—U. S. Eng., 925 New Federal Bldg., Pittsburgh, Pa., water softening plant, water storage tanks, Contr. 36-058-eng-88, Berkeley Co., to Ross Engineering Co., 3308 14 St. N.W., Wash., D. C., **$20,000.**

Que., Lauzon—Municipality, c/o L. Boarassa, clk., intake construction, to C. Beaudet, 77 Charest Blvd., Quebec City, **$54,000.** Z. Langlois, 105 Mountain Hill, Quebec City, engr.

Que., Quebec City—[illegible] Chouinard, municipality clk., Quebec [illegible] watermain [illegible] to Dryden Ltd., 4414 W. Ste. Catherine, Montreal. Est. **$190,000.** CD 8/25—ENR [illegible]

SEWERS, WASTE DISPOSA

PROPOSED WORK

Calif., Vallejo—Solano Co., Court H[illegible] addnl. sewer facilities in Valejo, $470,622.

†Ill., Cartersville—Village, J. W. Ha[illegible] mayor, sewerage sys., completion, sludge tank, involving concrete work, ing valves and fittings, constructing sew lines, **FWA** 11-256. E. A. Fulton, 7 S. M[illegible] St., Clayton, Mo., engr. CD 8/25—ENR [illegible]

N. Y., Hamburg—Town Bd., Hamburg, tary sewerage sys. in residential sects Athol Springs and Locksley Park area. E W. D. Allen, superv. in charge.

O., East Cleveland—Chas. A. Corra[illegible] mgr., 14340 Euclid Ave., sewers, pa[illegible] water lines, $200,000. Bond election [illegible]

★**O., Springfield**—Imprv. sewage and [illegible] age sys. $1,500,000.

S. D., Sioux Falls—C. M. Whitfield, [illegible] City Hall, sanitary trunk sewers in Brake Bratrud addns. and north of Big Sioux [illegible] $25,000.

★**Tex., Houston**—J. Edy, city mgr., [illegible] disposal plant unit, $700,000. J. Fran[illegible] H. E. Elrod, City Hall, consult. engr. CD [illegible]—ENR 5/20, under Postwar Projects.

Tex., Port Neches—Storm sewers, main[illegible] J. B. Converse & Co., City Hall Annex, Arthur, engrs.

†Tex., Port Neches—J. O. Herring, ma[illegible] sanitary sewerage sys. imprvs., exten. [illegible] 600. **FWA.** J. B. Converse & Co., Inc., Hall Annex, Port Arthur, engr.

†Tex., Texas City—Galveston Co. Water [illegible] trol & imprv., Dist. 4, sewer facilities imp[illegible] Tex. 41-596. $64,500. **FWA.** J. J. Rady, surance Bldg., Fort Worth, engr. CD [illegible] ENR 4/1.

†Va., Blackstone—Town, addnl. sewer [illegible] water facilities, Va. 44-332 and Va. 44[illegible] $25,290. **FWA.** R. S. Roger, Builders change Bldg., Richmond, engr.

BIDS ASKED

Bids Asked September 23

Ky., Louisville—At office of Director [illegible] Comrs. of Sewerage, Valletta Lane-Woodla[illegible] Ave., sewer and drain. Contr. 111, incl. [illegible] lin. ft. 8- to 27-in. vitr. clay pipe drain and [illegible] lin. ft. 27 and 24 in. concrete pipe drain. [illegible] deposit $10.

Bids Asked about September 23

Tex., Houston—Miller-Estes Co., [illegible] St., sanitary sewer collecting lines, incl. [illegible] lin. ft. water lines, natural gas lines, P. G. Willard, Waggoner Bldg., Fort W[illegible] engrs. CD 9/6—ENR 9/9.

LOW BIDDERS

Calif., San Pablo—San Pablo Sanitary [illegible] F. Carfield, secy., Firehouse, San Pablo, [illegible] lin. ft. 6 in. vitr. clay sewer pipeline thro[illegible] out Assessment Dist. 17, from Anders[illegible] Rowe, 84 Page St., San Francisco, $8[illegible] P. Jones, 2429 MacDonald Ave., Richm[illegible] dist. engr.

La., New Orleans—Sewerage & Water [illegible] 526 Carondelet St., Sept. 3, Contr. 140-S [illegible] lin. ft. 6 and 8 in. concrete sewers and C[illegible] 141-S, 3,800 lin. ft. 6 and 8 in. concrete se[illegible] from Boh Brothers Constr. Co., 2440 Cl[illegible] St., **$44,255.** CD 8/25.

†Mich., Dearborn—Federal Works Ag[illegible] 2933 Barlum Tower, Detroit, Aug. 27, [illegible] extens., Mich. 20-278, from Garsaro Co., Seven Mile Rd. E., Detroit, $108,349.

N. J., East Orange—Town, Sept. 9, se[illegible] from Nicholas Di Menna & Sons, Inc., Blondell Ave., New York, N. Y., $21,478 official). CD 7/20—ENR 7/22.

†Va., Bowling Green—Town, Sept. 1, se[illegible] age sys., Va. 44-229, from Hughes & K[illegible] Inc., 1726 Altamont Ave., Richmond, $2[illegible] **FWA.** CD 8/27.

CONTRACTS AWARDED

†Ill., Monsanto (br. East St. Louis)—Vi[illegible] L. Sauget, pres. Bd. Trustees, G. J. Ogle[illegible] lage clk., City Hall, reinforced box and [illegible] clay sewers, etc., to Michael Pontarelli & [illegible] 4248 N. Kilpatrick Ave., Chicago. Est. $[illegible] **FWA.** CD 7/23—ENR 7/29.

†North Carolina—U. S. Eng., 208 C[illegible] house, Wilmington, drainage impro[illegible]

S, etc. (Contracts Awarded, Cont'd.)
, New Hanover Co., to E. W. Grannetteville, under **$50,000.** Bids 8/28, 8/30.

le Island—U. S. Eng., 819 Industrial Bldg., Providence, sewage disposal sys., Newport Co., to G. E. Duteau, 90 St., Springfield, Mass. Est. under Bids 8/27.

Toronto—Sewage disposal plant on erman's Island, to Rayner Constr. Co. Commercial St., Leaside, **$1,791,697.** stage $5,600,000, complete job $16.- Gore & Storrie, 1130 Bay St., engrs. 24/41—ENR 10/30/41, under CA.

BRIDGES

SED WORK

North Vancouver—Replacement trestle over McKay Creek, E. H. Valentine, ail, engr.

Bousquet—Province of Quebec, Quebec idge, $75,000, Dpt. Mines & Resources, City, engr.

ASKED

Bids Asked September 21

—State Hy Comn., Ames, rein.-con. box exten. with rein.-con. flume, U. S. 30, Dow City, Sect. 17, Union Twp., FN-287, on. box culverts extens., etc., U. S. 59, Denison, between Sects. 1 and 2, Washington Twp., and on west side U. S. 59, Sect. shington Twp., FN-321, foregoing Crawd; raising upper portion twin 6x4 ft. n. box culvert, grading, surfacing 0.511 a 31, FN-457, Woodbury Co. F. R. Ames, ch. engr.

rnia—State Div. Hys., 808 State Bldg., geles, Sept. 2, repairing 33 timber Riverside Co., from F. E. Stearman, Zanja Dr., Glendale, **$42,924.** CD 8/16 8/19.

gan—State Hy. Dpt., and Wayne Co. omrs., Lansing, Sept. 1, grade separacarry Rotunda Dr. over Detroit Indusxpressway, from B. T. Frank, East **$122,904.** CD 8/26.

ylvania—State Hy. Dpt., Harrisburg, imprv. 156 ft. bridge paving, Mc-, from H. T. Osburn & Co., Franklin, CD 8/26.

Pittsburgh—Bd. Comrs. Allegheny Co., House, Sept. 7, bridge and paving ock Blvd., Sect. 4, from Frank ll & Sons, 7202 Apple St., **$338,237.** CD NR 8/19.

Sheboygan—Bd. P. Wks., City Hall, Pennsylvania Ave., repairing Pennsylve. bridge fdns., protection wharf and s. from McMullen & Pitz Constr. Co., oc. **$24,925.** CD 8/31—ENR 9/2.

ACTS AWARDED

da—U. S. Eng., 575 Riverside Ave., ville, Zone 2, bridge and road, Neg-14, Lee Co., to **Marion Contracting Co.,** nder **$50,000. Awarded 9/4.**

oma—State Hy. Dpt., Oklahoma, t Greenleaf Creek, Muskogee Co., to Gravelle, Hightower Bldg., Oklahoma **3,271.** Awarded 9/1. B. E. Clark, Bldg., Oklahoma City, engr.

St. Joseph de Kamouraska—Municil. Pelletier mayor, 2 span, 60 ft. bridge, approaches, to Adelard Joiln, Dame St. St. Raphael. Est. **$25,000.** ardins, Dpt. P. Wks., Quebec City,

STREETS AND ROADS

ASKED

Bids Asked September 20

ia—At office H. J. Spelman, dist. ub. Roads Admin., 1440 Columbia rlington, constructing project VA DA Grading 17, War Department Building-Network, Arlington Co. **FWA.** adv. ds.

Bids Asked September 21

—State Hy. Comn., Ames, concrete 288 sq. yd. Iowa 64, at C.R.I. & P. ssing, Avoca, P-576, Pottawattamie h cleaning, U. S. 75, north and south ll, FN-38, Plymouth Co.; maintenance ng 7.9 mi. Iowa 100, M-4266, Cass mi. Iowa 143, M-3294, Cherokee Co.; owa 204, and 6.5 mi. Iowa 294, M-4267, Co.; 4 mi. Iowa 84, M-6192, Linn Co.; U. S. 169, 11.3 mi. Iowa 251, 8.1 mi. 5.5 mi. Iowa 207, all M-4268, Madi-13 mi. Iowa 10, 5 mi. Iowa 143, and 4 S. 59, all M-3295, O'Brien Co.; 12.6 37, M-4269, Shelby Co.; 11 mi. U. S. mi. Iowa 10, from Orange City to U. S. 8.1 mi. Iowa 10, from Alton to O'Brien all M-3296, Sioux Co. F. R. White, ngr.

Bids Asked September 21

Pomeroy—Wyandotte Co., R. Wheat, grading and rocking road across dam, grade, seeding, near here. M. C. Nichol, Co. engr.

Bids Asked September 22

Louisiana—State Hy. Dpt., D. Y. Smith, dir., Baton Rouge, 3,020 cu. yd. washed gravel furnished spot dumped, S.P. 703-09-36, St. John the Baptist Parish and 6,534 cu. yd. washed gravel (or as alternate 7,692 cu. yd. gravel) S.P. 703-00-37, East Feliciana Parish.

Bids Asked September 23

Neb., Bellevue—F. H. Freeman, mayor, gravel surfacing streets and storm sewers, approx. $100,000. Henningson Eng. Co., Standard Oil Bldg., Omaha, engrs.

Tex., Houston—Miller-Estes Co., 3300 Main St., asphalt paving 50,000 sq. yd. streets in large housing area. $75,000. P. G. Willard, Waggonner Bldg., Fort Worth, engr.

Bids Asked September 29

California — State Div. Hys., Sacramento, grading, concrete paving and plant mix surfacing 0.4 mi. at South Verona underpass between Sunol and Dublin, Alameda Co.; asphaltic concrete paving on existing pavement and newly constructed crusher run base 1.5 mi. on Cuttin~ Blvd. between Garrard Blvd., and 14 St., Contra Costa Co. G. T. McCoy, state hy. engr.

Bids Asked

Iowa—State Hy. Comn., Ames, received no bids Sept. 7, maintenance resurfacing 13.2 mi. M-3290, Buena Vista and Sac Counties; rejected bids Sept. 7, maintenance bridge repair, M-1268, Story Co. CD 8/27—ENR 9/2.

Missouri—State Hy. Comn., Jefferson City, rejected bids Aug. 20, gravel surfacing 5.987 mi. Johnson Co.; graded earth 0.208 mi. Linn Co. CD 8/11.

Wisconsin—State Hy. Comn., Madison, rejected bids, Sept. 8, imprv. 11.03 mi. Elroy-New Lisbon Rd., State Trunk Hy. 80, A.F.E. 29-06, and 2.56 mi. Elroy-Kendall Rd., State Trunk Hy. 71, A.F.E. 29-07, Juneau Co. CD 9/10—ENR 9/16 under LB.

LOW BIDDERS

†California — Pub. Roads Admin., Phelan Bldg., San Francisco, Sept. 2, constructing 4.832 mi. Mosquito Timber access road, Lowe Cabin-Saddle-Gaddis Creek, El Dorado Co., from Frederickson & Watson Constr. Co., 873 81 Ave., Oakland, **$165,313.** Chas. C. Morris, Phelan Bldg., San Francisco, dist. engr.

California—State Hy. Dpt., 808 State Bldg., Los Angeles, Sept. 2, imprv. 15 mi. XI-Riv-64-A, B, C and D, Riverside Co., from Arthur A. Johnson, 421 Pearl St., Laguna Beach, **$49,995**—0.7 mi. Los Angeles Co., from Oswald Bros., 366 E. 58 St., Los Angeles, **$32,377.** CD 8/16—ENR 8/19.

California—State Div. Hys., Sacramento, Sept. 8, imprv. 3.5 mi. Santa Barbara Co., from Brown, Doko & Baum, Box 23, Pismo Beach, **$35,469.** CD 8/23—ENR 8/26.

†California—U. S. Eng., 751 S. Figueroa St., Los Angeles, Zone 1, Sept. 9, roads, No. 3316, from Geo. Herz & Co., Base line Rd. and Lytle Creek Rd., San Bernardino, **$60,000-$70,000.**

California—State Hy. Dpt., 808 State Bldg., Los Angeles, Sept. 10, imprv. 3.3 mi. Riverside and San Bernardino Counties, from Matich Bros., Elsinore, **$72,505.** CD 8/23—ENR 8/26.

D. C., Wash.—District Comrs., District Bldg., Sept. 9, concrete sidewalks, grading various streets, from Highway Engr. & Constr. Co., 7 and T Sts., NE **$27,421.**

D. C., Wash.—District Comrs., District Bldg., Sept. 10, repairing openings in roadways, sidewalks, alleys, and other public space, in connection with Project D.C-49-101-115-117, from McGuire & Rolfe, Inc., 1 and O Sts. SE. **$48,587.**

Idaho—Dpt. P. Wks., Bureau Hys., Boise, Aug. 31, furnishing crushed rock and gravel in stockpiles, Miscellaneous Proj. Nos. 1237, 1239 and 1240, Twin Falls and Jerome Counties, from Duffy E. Reed Constr. Co., Twin Falls, **$37,240.** CD 8/25.

Ill., Decatur—Arterial street repairs, from Earl Walker Co., Inc., Sullivan, **$32,529.**

Iowa—State Hy. Comn., Ames, Sept. 7, paving relocation of U. S. 34, Proj. FAGM-414-C(1), Burlington, Des Moines Co., from Fred Carlson Co., Decorah, **$53,035.** CD 8/27—ENR 9/2.

Kentucky—State Hy. Dpt., Frankfort, Sept. 10, imprv. 4.106 mi. Bell Co., from Cumberland Constr. Co., Burkesville, **$73,599***2** mi. Boyd Co., from Middle States Bituminous Corp., Ironton, O., **$45,282***2.732** mi. Fayette Co., from Carey Constr. Co., Lexington, **$26,420***2.261** mi. Jefferson Co., from Henry Bickel Co., Baxter and Jefferson Sts., Louisville, **$33,869***5.731** mi. Leslie Co., from J. C. Codell & Co., Winchester, **$254,653.** Received no bids Sept. 10, imprv. 0.625 mi. Christian Co. CD 8/25.

Louisiana—State Hy. Dpt., Baton Rouge, imprv. 0.222 mi. Caddo Parish, from W. R. Aldrich & Co., Kalwrah University Gardens, Baton Rouge, **$36,390.** CD 8/27.

Michigan—State Hy. Dpt., Lansing, Sept. 8, imprv. 3.5 mi. Wayne Co., from Detroit Asphalt Paving Co., 702 Transportation Bldg., Detroit, **$221,636.** CD 9/2.

Nebraska—W. G. Scott, engr. Dpt. Roads & Irrigation, Lincoln, Sept. 2, imprv. 1 mi. Proj. 43-F-FA-115, Columbus-Duncan, from Booth & Olson, Inc., 622 Ins. Exchange Bldg., Sioux City, Ia., **$56,049;** Proj. 43-F-FA-276-B, Ravenna-Cairo, and Proj. 43-F-FA-276-B, Columbus-Duncan, from Elkhorn Constr. Co., Norfolk, **$38,893** and **$37,999** respectively. CD 8/25.

New York—Dpt. P. Wks., Div. Hys., Albany, Sept. 2, imprv. 1.21 mi. Nassau Co. and 2.32 mi. Suffolk Co., from Zara Contr. Co., Prospect Ave., Hewlett, **$38,944** and **$112,888** respectively***20 ft. cinder surfacing, etc., Rockland Co., from White Plains Contr. Co., White Plains, **$61,121.** CD 8/25.

New York—State Dpt. P. Wks., Div. Hys., Albany, Sept. 8, imprv. 15.22 mi. roadway, DA. RC 43-5, Seneca Co., from T. Fischette, Clyde, **$112,499.** CD 8/31—ENR 9/2.

N. Y., Brooklyn—Comr. Dpt. Parks, Arsenal Bldg., Central Park, 64 St. and 5 Ave., New York, Sept. 3, sheet asphalt repaving Ocean Parkway. Contr. B-65-243, from Milljay Constr. Corp., 515 Avenue I, **(a) $127,530, (b) $128,532.** CD 8/30.

North Carolina—State Hy. & P. Wks. Comn., Raleigh, Sept. 2, grading, sand asphalt or sand asphalt on soil type paving 3.97 mi. road between U.S. 17 at Hempstead and Castle Hayne, Proj. 287, Pender Co. from F. D. Cline, Fairview Rd., Raleigh, **$136,031.** Est. $75,000-$100,000.

Tennessee—State Hy. Dpt., Nashville, Sept. 3, imprv. 3.253 mi. Shelby Co., from J. E. Thomas, Vendome Bl., Nashville, **$155,121.** CD 8/16—ENR 8/19.

Wisconsin—State Hy. Comn., Madison, Sept. 8, imprv. 11.03 mi. Elroy-New Lisbon Rd., State Trunk Hy. 80, A.F.E. 29-06, and 2.56 mi. Elroy-Kendall Rd., State Trunk Hy. 71, A.F.E. 29-07, from A. Overgaard, Cambridge, Option B, **$119,900.** CD 8/30—ENR 9/2.

British Columbia—Minister Dpt. P. Wks., Parliament Bldgs., Victoria, Sept. 7, 6 mi. road at Cowichan Lake, Vancouver Island, from Vancouver Constr. Co. Ltd., 2823 W. 22 St., Vancouver, **$50,499.**

CONTRACTS AWARDED

★ **†Arizona**—U. S. Eng., 751 S. Figueroa St., Los Angeles, Zone 14, Calif., roads, No. 156, Coconino Co., to Hasich Bros., P. O. Box 151, Alhambra, Calif., **$600,000-$700,000.** Awarded 8/26. CD 9/1—ENR 9/9.

†Arkansas—U. S. Eng., 300 Bway., Little Rock, resurfacing roads Hempstead Co., and access road, Arkansas Co., to D. F. Jones Constr. Co., Southern National Bank Bldg., Little Rock, **$53,000.**

Calif., Long Beach—City Harbor Dpt., 1333 W. El Enibarcadero, paving cargo landing areas at Long Beach Harbor, Spec. HD 152, to Sully-Miller Constr. Co., 1500 W. 7 St., Long Beach, **$99,100.** E. J. Amar, 1333 W. El Embarcadero, port mgr.

Calif., Richmond—Parr Richmond Terminal Corp., 1 Drum St., San Francisco, paving 339,000 sq. ft. at Terminal 3 on S. Tenth St., to Lee J. Immel, Box 65, Station A, Berkeley. Est. **$49,000.**

Conn., Hartford—Bd. Contr. & Supply, 550 Main St., paving certain torn up sections streets, to Edward Balf Co., 171 State St., about **$165,000.** R. J. Ross, City Hall, engr.

†Florida—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, pavements, Neg-A.P.-44-1, Highlands Co., to L. J. Cobb, First National Bank Bldg., Tampa. Zone 2, and W. L. Cobb Constr. Co., 1102-22 St., Tampa, Zone 1, under **$50,000. Awarded 9/1.**

†Florida—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, imprv. access roads, Neg-Jax-44-164, Charlotte Co., to G. P. Reuts, 1717 Evergreen Ave., Jacksonville, Zone 6, under **$50,000.** Awarded 9/6.

†Florida—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, reconstructing access roads, Neg-Jax-44-142, Collier Co., to Cleary Bros. Constr. Co., Georgia Ave., West Palm Beach, under **$50,000.** Awarded 9/6.

†Florida—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, roads and walks, Neg-Jax-44-119, Sumter Co., to W. H. Armston Co., Inc., Duneden, under **$50,000.** Awarded 9/6.

†Georgia—U. S. Eng., Post Office Bldg., Savannah, addnl. grading, drainage and paving, Contr. 819-Eng-1642, Thomas Co., to T. H. Pearce & Co., Columbus, **$30,000.**

Idaho—Dpt. P. Wks., Bureau Hys., J. D. Wood, dir., Boise, road mix bituminous surfacing 2.764 mi. Menan-Lorenzo Rd., and bituminous surface treating 7.5 mi. Shelley-New Sweden Rd., Miscellaneous Projects 1130 (2), 1129 (2) and S.A.P. 138-A(2), Jefferson and Bonneville Counties, to N. Burggraf, Idaho Falls, **$24,768.** Bids 9/3.

†Illinois—U. S. Eng., 520 Merchandise Mart, Chicago, seal coating bituminous pavements, Contr. 11-032-Eng-546, Lawrence Co., to Allegheny Asphalt & Paving Co., 411 Blvd. Allies, Pittsburgh, Pa., **$30,000.**

Ill., Chicago—Comrs. Cook Co., County Bldg., bituminous surfacing Sunset Ridge Rd., Northfield Twp., 25 Ave. to State St., Leyden Twp., 143 St., Bremen Twp., Kedzie Ave., Rich Twp., Ridgeland Ave., Bremen-Worth Twp., Dee Rd., Maine Twp., Montrose Ave., Norwood Park Twp., Steger Rd., Bloom Twp., and Plainfield Rd., Lyons Twp., to Rock Road Constr. Co., 5915 Rogers Ave., **$58,555;** limestone rock asphalt paving 26 St., Bloom Twp., Ashland Ave.,

STREETS, etc. (Contracts Awarded, Cont'd.)

Thornton Twp., Holbrook Rd., State St., and Kedzie Ave., Bloom Twp., to Alabama Asphaltic Limestone Co., 737 N. Michigan Ave., **$48,591.** Bids 8/24. G. Quinlan, 160 N. LaSalle St., engr.

★ **†Kansas**—U. S. Eng., 10 E. 17 St., Kansas City Mo., earthwork, sub-grade preparation, removal and replacement of existing base course and surfacing materials, etc., Contr. 23-028-Eng-47, Montgomery Co., to Northwestern Engr. Co., Rapid City, S.D., **$700,000.**

★ **†Massachusetts**—U. S. Eng., 31 St. James Ave., Boston, grading, paving, No. 19-023-44-Neg 22, Essex Co., Sect. A, to John Iafolla Constr. Co., 11 Van Brunt Ave., Dedham, under **$1,000,000**; Sect. B, to De Matteo Constr. Co., 71 Blue Hills Parkway, Milton, **$100,000-$500,000.** Bids 8/20. CD 8/16.

†Massachusetts—U. S. Eng., 31 St. James Ave., Boston, roads, drainage, No. 19-023-44-Neg 43, Suffolk Co., to C. Capone, 44 Wellsome Rd., Roslindale. Est. under **$50,000.** Bids 9/3.

Mich., Detroit—Wayne Co. Rd. Comn., Barlum Tower, drainage structures, curb and gutter and concrete paving Outer Drive pavement between Fort Superhighway and Fifth St., to Thomas E. Currie Co., 2531 Connor St., **$96,088.**

Minnesota—State Hy. Dpt., St. Paul, imprv. 10.8 mi. S.P. 7901-22 (Trunk Hy. 42442), to Hector Constr. Co., Hector, **$84,842.** Bids 9/3. CD 8/18—ENR 8/26.

†Nebraska—U. S. Eng., 1709 Jackson St., Omaha, surfacing, Contr. 25-066-eng-33, Redwillow Co., to Northwestern Engr. Co., Rapid City, S. D., **$30,000.**

Nevada—State Hy. Dpt., Carson City, constructing access road, Nye Co., to Oilfields Trucking Co., Box 751, Bakersfield, **$37,442.**

New Mexico—State Hy. Dpt., Santa Fe, imprv. 2.554 mi. Bernalillo Co., to W. J. Culbertson, 3300 Monte Vista Blvd., Albuquerque, **$38,680**; 7.377 mi. Santa Fe Co., to A. O. Peabody, P. O. Box 1724, Santa Fe, **$214,909.** Bids 9/10. CD 9/2.

†North Carolina—U. S. Eng., 308 Customhouse, Wilmington, roads, drainage, Iden. 982-44-20, Onslow Co., to E. W. Grannis, Fayetteville, under **$50,000.** Bids 8/21, awarded 8/31.

★ **North Dakota**—J. S. Lamb, comr. State Hy. Dpt., Bismarck, imprv. 8.81 mi. Emmons Co., to Bismarck Constr. Co., Bismarck, **$28,700***21,971 mi. Benson and Ramsey Counties, to Northern Improvement Co., Fargo, **$333,841**; 7.48 mi. Grand Forks Co., to P. A. Bradbury, Aberdeen, S. D., **$119,111.** Grand total $531,652. Bids 9/3. Rejected bids Sept. 3, imprv. 34.447 mi. Richland Co. CD 8/26.

Ohio—State Hy. Dpt., Columbus, imprv. 1.553 mi. Medina Co., and 3.003 mi. Franklin Co., to Ohio Rd. Imprvt. Co., 30 E. Broad St., Columbus, **$29,196,** est. $29,400 and **$54,009,** est. $62,900 respectively***17.68 mi. Butler and Clermont Counties and 4.131 mi. Preble Co., to L. P. Cavett Co., 511 Shepherd Ave., Lockland, **$44,163,** est. $47,678 and **$40,034,** est. $43,150 respectively***0.844 mi. Summit Co., to The Thorpe Constr. Co., 109 N. Union St., Akron, **$79,459,** est. **$84,300***2.319 mi. Columbiana Co., to Tri-State Asphalt Corp., South Broadway, Martins Ferry, **$33,425,** est. $33,460***4.857 mi. Hamilton Co., to Scully Bros., 805 Atlas Bank Bldg., Cincinnati, **$46,280,** est. $48,400***0.946 mi. Madison Co., to S. Monroe & Son Co., 2344 Gallia St., Portsmouth, **$91,182,** est. $93,270***3.247 mi. Cuyahoga Co. and 2.32 mi. Cuyahoga Co., to The Allied Corp., 714 Keith Bldg., Cleveland, **$148,867,** est. $166,940, and **$33,380,** est. $34,430 respectively***1.492 mi. Williams Co., to S. E. Johnson & Co., 218 Terminal Bldg., Toledo, **$36,170,** est. $37,200***5.326 mi. Williams Co., to C. J. Wetzel, 126 Otterbein Ave., Dayton, **$90,617,** est. $96,300. Grand total $726,782. Bids 8/31. Received no bids Aug. 31, imprv. 1.181 mi., SH 396, Jackson Co. CD 8/17—ENR 8/19.

O., Cleveland—F. Foy, city purch. agt., City Hall, 2,875 sq. yd. concrete and 7,900 sq. yd. brick repaving over water line trench, St. Clair Ave. from London Rd. to Melville Rd., to Lombardo Bros. Constr. Co., 1770 E. 11 St., **$79,780.** J. C. Wenrick, city engr.

Pennsylvania—State Hy. Dpt., Harrisburg, imprv. 5,241 ft. Northumberland Co., to F. D. Kessler, Inc., Northumberland, **$51,755.** Bids 8/20, awarded 9/1. CD 8/11.

Pennsylvania—State Hy. Dpt., Harrisburg, imprv. 8,663 ft. Chester Co., to Berlanti Constr. Co., Inc., 15 Oakland Ave., Harrison, N. Y., **$225,725.** Bids 8/27, awarded 9/7. CD 8/19.

Pennsylvania—State Hy. Dpt., Harrisburg, imprv. 25,028 ft. Mercer Co., to Central Pennsylvania Quarry, Stripping & Constr. Co., 270 S. Pine St., Hazelton, **$445,412.** Bids 8/28, awarded 9/9.

Pennsylvania—State Hy. Dpt., Harrisburg, imprv. 5,465 ft. Bucks Co., to Tri-County Constructors, Elkins Park, **$93,789.** Bids 8/31, awarded 9/7.

Pa., Pittsburgh—John Hack, 2021 Jacob St., Pittsburgh, grading, paving, curbing Milan St. from Witt to Greencrest, to Bellaire to Brookline Blvd., in Pitt Manor Plan, to J. Welsh, 1133 Merrick Ave. Est. **$50,000.**

S. C., Charleston—J. Maybank, city clk., curbs and gutters, to M. L. Stephenson, 273 E. Bay St., approx. **$60,000.**

†Utah, Clearfield—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., road surfacing, NSD, NOY 6607, to W. W. Clyde & Co., Springville, **$172,180.**

†Washington—U. S. Eng., 800 3 Ave., Seattle, Zone 4, surfacing roads, walks and parking area, Grant Co., to McAtee & Heathe, E. 3527 Trent Ave., Spokane, **$100,000.**

†Washington—U. S. Eng., 800 3 Ave., Seattle, Zone 4, surfacing roads, walks, etc., Spokane Co., to J. H. Collins & Co., P. O. Box 56, Spokane, **$50,000.**

Wisconsin—State Hy. Dpt., Madison, imprv. 2.097 mi. Douglas Co., to J. W. Craig Co., 1814 California St., Minneapolis, Minn., **$39,796.** Bids 8/27. CD 8/23.

Ont., Leaside—Concrete pavement, to Rayner Constr. Co. Ltd., 29 Commercial St., approx. **$37,000.**

Ont., St. Catherines—H. H. Smith, municipality clk., 36 ft. pavement from Ontario to York Sts. and from York to Lake Sts., day labor, **$44,865,** B. F. Lamson, City Hall, engr.

Quebec—Province of Quebec, Quebec City, grading, graveling 1⅛ mi. Matane Co., to S. Lafontaine, 6 St. Jerome Ave., Matane, **$29,810**; 4⅛ mi. Hy. 23, Blance Co., to Verochio Ltd., 7811 Monkland Blvd., Montreal, **$248,967.** E. Gohier, Dpt. Roads, Quebec City, engr.

Quebec—Province of Quebec, Quebec City, road constr., Cadillac, day labor, **$85,000.** Dpt. Roads, Quebec City, engrs.

★ **Quebec**—Province of Quebec, Quebec City, concrete paving 18½ mi. hy. St. Emelie, Lothinbiere Co., to A. Sicotte & Sons, 1906 Van Horne Ave., Montreal, **$420,187***5¼ mi. hy. St. Edouard, to H. J. O'Connell, Ltd., Canada Cement Bldg., Montreal, **$82,261*** excav., grading 1¼ mi. Drummondville, to C. Gagnon, 220 Grande Allee St., Quebec City, **$90,480.** Grand Total, $592,908. E. Gohier, Dpt. Roads, Quebec City, engr.

EARTHWORK, WATERWAYS

PROPOSED WORK

★ **Calif., Glendale**—Los Angeles Co. Flood Control Dist., 751 S. Figueroa St., Los Angeles, Zone 14, debris basins and tunnels to control flood waters near Glenoaks Canyon. Over $1,000,000. Seeking federal funds. M. E. Salsbury, 751 S. Figueroa St., Los Angeles, Zone 14, engr

Calif., Long Beach—City Harbor Dpt., 1333 W. Embarcadero, bids about 10 days, levee at entrance to Los Angeles River Channel, over $25,000; clay and rock dike at Pier A, over $25,000. R. R. Shoemaker, 1333 W. Embarcadero, engr.

Ia., Red Oak—A. E. Johnson, city clk., 4.87 mi. new channel and 5.5 mi. repairs present channel. $45,000.

Ia., Red Oak—Montgomery Co., drainage sys. in Walnut Creek Dist. $71,393. Theo. S. DeLay, Creston, engr.

North Dakota—North Dakota Water Conservation Comn., Bismarck, drainage in Richland, Cass, Walsh, Pembina, Traill and Grand Forks Counties. $47,000.

†Washington—U. S. Eng., 800 3 Ave., Seattle, Zone 4, addnl. drainage facilities, Neg. 741, King Co.

†Wisconsin—U. S. Eng., 408 Federal Bldg., Milwaukee, widening mouth of harbor basin from 650 to 1,000 ft. and dredging 19 ft. deep channel in Root River, Racine Co.

BIDS ASKED

Bids Asked September 24

Ia., Muscatine—Muscatine Levee Imprv. Comn., R. E. Dunker, chn., levee along Mississippi River incl. approx. 8,920 ft. levee from a point near the McKee Button Plant southward to city limits, etc. Bids Sept. 3, returned unopened.

†Mississippi—U. S. Eng., U. S. Post Office and Courthouse, Vicksburg, approx. 1,125,000 cu. yd. earthwork on east bank of Mississippi River, No. 22-052-44-13.

Bids Asked September 27

Ia., Carroll—Bd. Supervs. Carroll Co., cleanout of Drain 23, 383,563 cu. yd. excav. Over $25,000. J. F. Maher, Carroll Co. engr.

Bids Asked September 28

Calif., Long Beach—E. J. Amar, port mgr., c/o City Harbor Dpt., 1333 W. Embarcadero, rock levee at entrance of Los Angeles River Channel, incl. 94,000 tons seal rock, 27,000 tons handling armor rock and 40,000 cu. yd. dragline excav. Over $25,000. R. R. Shoemaker, 1333 W. Embarcadero, engr. CD 9/13.

CONTRACTS AWARDED

†Arkansas—U. S. Eng., U. S. Post Office and Courthouse, Vicksburg, Miss., approx. 825,000 cu. yd. earthwork on south bank Arkansas River, Lincoln Co., to T. L. James & Guilliams Bros., Ruston, La., approx. **$295,380.** CD 8/24—ENR 8/26.

†Arkansas—U. S. Eng., West Memphis, approx. 225,000 cu. yd. earthwork, Farelly Lake and New Cascony Levee Dists., Sol. 40-041-44-15, Jefferson Co., to T. L. James & Co., Ruston, La., approx. **$60,000**; 2,500 cu. yd. riprap pavement [illegible] Farelly Lake Dist., [illegible] son Co., to W. [illegible] approx. **$20,000.** [illegible]

Ark., Des Arc—J. [illegible] Dpt., Little Rock, [illegible] suspension bridge [illegible] W. W. Mitchell, Little Rock, engr.

†Florida—U. S. Eng., 575 Riverside, Jacksonville, Zone 2, outfall ditch and [illegible] Neg-Jax-44-157, Charlotte Co., to [illegible] Constr. Co., Clare [illegible] West Palm Beach, under **$50,000.** Awarded 9/6.

†Florida—U. S. Eng., 575 Riverside, Jacksonville, Zone 4, drainage ditches, Jax-44-132, Orange Co., to H. E. Wolfe Co., St. Augustine, under $100,000. 9/1.

†Mass., South Boston—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., addnl. fill, reserved channel area, Dry Dock, NOY 7312, to Walter Reed, 1078 Boylston St., Boston, **$123,000** reserved channel area, Naval Dry Dock, 7503, to Marinucci Bros. & Co., 27 Beach St., Boston, **$123,000** unit price basis.

†Missouri—U. S. Eng., 426 Wright, Tulsa, 2, Okla., levee repair, inc. about [illegible] cu. yd. embankment repairs to Gibbons Dist., Newton Co., to P. E. Reed, Iola, Kan.

†North Carolina—U. S. Eng., 308 Customhouse, Wilmington, dredging, Iden. 982-44-19, to Atkinson Dredging Co., Greensboro, under **$50,000.** Awarded 8/30.

†North Carolina—U. S. Eng., 308 Customhouse, Wilmington, drainage repair work, grading, etc., Iden. 982-44-20, Onslow Co., to F. D. Cline, Fairview Rd., Rocky Mount, approx. **$46,000.** Awarded 8/25.

†Oregon—U. S. Eng., Pittock Blk., Portland, 2nd phase channel imprvs. on Long Tom, comprising imprvs. to Fern Ridge Reservoir, Lane Co., to E. C. Hall Co., Eugene, Ore. Awarded 9/8.

†Tennessee—U. S. Eng., West Memphis, approx. 177,000 cu. yd. earthwork, 2,500 cu. yd. rip rap pavement and installing 2 concrete culverts, No. 40-041-44-19, Lake Co., to Clark & L. K. Sager, Jackson, approx. $

Tex., Raymondville—Wallacy Co. Water Control & Imprvt. Dist. 1, widening [illegible] **age,** force account, **$20,000.** CD 9/2—ENR

UNCLASSIFIED

PROPOSED WORK

Ala., Mobile—PIPELINE—United Gas Pipe Line Co., Shreveport, La., 4.4 mi. pipeline connecting southern terminus of 84 mi. line owners transmission line from Jackson, Miss., to Mobile, Ala.

★ **†Colo., Trinidad**—AIRPORT—Civil Aeronautics Admin., 14 St. between B and Constitution Ave. N.W., Wash., D. C., preliminary plans, airport. $1,800,000.

†Ind., Madison—UNLOADING DOCK—Central Coal Co., Madison, large unloading dock, appurtenances, on right bank Ohio R., incl. structure 80 ft. long, 24 ft. wide, 60 ft. high, and incline railway along river bank. Over $25,000.

†Ia., Stanton—RURAL ELECTRIC [illegible] MISSION LINE—Nyman Electric Co-operative, Inc., connection rural electric transmission lines. $50,000. REA funds allotted.

Louisiana — DRILLING AND [illegible] BARGES, etc.—The Texas Co., 919 St. Charles St., New Orleans, drilling and boiler [illegible] pipelines, appurtenant structures for connection with drilling an exploratory for oil production, Terrebonne Parish.

Louisiana — GAS PIPELINE—Brown Woods, 822 Perdido St., New Orleans, [illegible] lation and maintenance 2 in. gas line across Bayou Lafourche, Lafourche Parish.

Louisiana—GAS PIPELINE—The Texas Co., 919 St. Charles St., New Orleans, [illegible] maintenance 2½ in. gas pipeline across Bayou Lafourche, Lafourche Parish.

†Louisiana—IMPROVEMENTS—U. S. Eng., 300 Broadway, Little Rock, Ark., [illegible] bldgs., Rapides Parish, from H. G. [illegible] Co., St. Joseph, Mich.

Louisiana—NATURAL GAS LINE—[illegible] Gas Pipe Line Co., Gas Bldg., Shreveport, [illegible] mi. 6 in. loop line for carrying natural gas, LaFourche and St. Charles Parishes. $25,000.

Louisiana—OIL WELL—Bayou State Oil Co., M. Blanche Bldg., Shreveport, [illegible] developing deep test oil well, Caddo Parish.

Louisiana—OIL WELL—Commonwealth Exploration & Drilling Co., Ardis Bldg., Shreveport, drilling, developing oilfield, Caddo Parish.

Louisiana—OIL WELL— Echols & Mc[illegible] mott, 1905 Canton St., Dallas, Tex., [illegible] casing, developing 3 new deep test oil wells, Iberville Parish. Over $25,000.

Louisiana—OIL WELL—General Crude Co., Esperson Bldg., Houston, Tex., [illegible] developing, running 10¾ in. casing, deep oil well, Beauregard Parish.

ASSIFIED (Proposed Work, Cont'd.)

...iana—OIL WELLS—Humble Oil & Re... Co., Humble Bldg., Houston, drilling, ...ping 9,500 ft. and 11,500 ft. oil wells, ...baoa and Terrebonne Parishes. Over

...siana—PIPELINE CARRIER—United ...ipe Line Co., Gas Bldg., Shreveport, 9 ...4 in. pipeline carrier, Caddo Parish. ...$25,000.

Abbeville—OIL WELL—Union Oil Co. ...lifornia, Commerce Bldg., Houston, Tex., ...g. developing 12,000 ft. test oil well, ...hers, Vermilion Parish.

Houma—GAS PIPELINE—United Gas ...Line Co., Gas Bldg., Shreveport, 4½ in. ...al gas pipeline. $25,000.

Lafayette—SWIMMING POOL—South... ...n Louisiana Institute, indoor swimming ...$100,000.

Ruston—SWIMMING POOL—Louisiana ...chnic Institute, indoor swimming pool. ...00.

...n., Duluth—AIRPORT COMPLETION—... Aeronautics Admin., Transportation ...608 S. Dearborn St., Chicago, Ill., re... ...bids Aug. 17, airport completion. ...00. Project cancelled. CD 8/11— ...8/25.

...ssippi and Alabama—GAS PIPELINE— ...l Gas Pipe Line Co., Gas Bldg., Shreve... ...La., 4.4 mi. gas pipeline at southern ...us of Jackson, Miss.-Mobile, Ala. line.

..., Hattiesburg—PIPELINE—The United ...Pipe Line Co., 1515 Fairfield Ave., ...sport, La., 4.4 mi. pipeline. $35,078.

..., Kansas City—AMUSEMENT PARK— ...Lewis, supt. Parks, City Hall, amuse... ...park, roadways, walks, rest rooms, ...g space and permanent bldgs., on 40 ...Moffatt tract adjoining Swope Park. ...00-$150,000.

...braska—IMPROVEMENTS—U. S. Eng., ...Jackson St., Omaha, imprvs., bldgs., ...o Co. Under $500,000.

..., Omaha—BROADCASTING STATION— ...Herald, 15 and Farnum Sts., high ...ncy broadcasting station.

... Mexico—IMPROVEMENTS—U. S. ...Commercial Bldg., Albuquerque, im... ...constructing and paving parking areas, ...Fe Co. $26,000.

..., Y., Niagara Falls—RUNWAY, etc.— ...y, runway, at municipal airport. $925,000.

..., C., Aberdeen—BATHHOUSE—Federal ...Agency, 601 State Planters Bank Bldg., ...ond 19, Va., bathhouse for service men ...civilians at Page's Lake, near here. ...FWA.

...homa and West Virginia—PIPELINE ...ER—Hope Natural Gas Co., 624 S. ... St., Tulsa, 22 or 24 in. natural gas ...e carrier between point in Okla. and ...ll Station, W. Va., approx. 1,250 mi.

...lahoma—NIGHT LIGHTING—U. S. ...Wright Bldg., Tulsa, Zone 2, night ...r facilities, Oklahoma Co.

...sylvania—RAILROAD TRACKAGE, ...S. Eng., Transfer, 1,100 ft. railroad ...e and locomotive shelter, etc., at ...y installation, Mercer Co. Gannett, ...n & Fleming, Inc., Transfer engrs.-

..., Nashville—IMPROVEMENTS— ...% T. L. Cummins, mayor, airway sta... ...000 ft. concrete ramp and about 10,000 ...crete runways. E. Keeble, Nashville ...Bldg., archt.

...ee and West Virginia—NATURAL GAS ...PELINE—Tennessee Gas & Transmission ...hattanooga Bank Bldg., Chattanooga, ...24 in. natural gas pipeline from the ...Gulf area to West Virginia, $47,500,000.

...e—IMPROVEMENTS—U. S. Eng., 4 ...ld Sts., Albuquerque, N. M., imprvs., ...29-005-Eng-44-32, El Paso Co. Over

...—OIL WELL—Brown & Wheeler, et al, ...na, developing new 10,000 ft. test oil ...Navarro Co.

...—OIL WELL—Dirks Bros. & Assoc., ...drilling, developing new 7,800 ft. test ...Bee Co.

...—OIL WELL—Maracaibo Oil & Ex... ...n Corp., Continental Bldg., Dallas, ...g 3 oil wells and drilling another ...ll, Jones Co. Over $25,000.

...—OIL WELL—H. S. Moss, First Na... Bank Bldg., Dallas, 8,100 ft. oil well, ...Peak area, Camp Co.

...—OIL WELLS, etc.—Pan-American ...ion Co., Esperson Bldg., Houston, ... developing number deep test oil ...athering lines, etc., Chambers Co.

...—OIL WELL, etc.—Southern Minerals ...rpus Christi, developing new 7,500 ft. ...well, storage, ground facilities, Refugio

...Agua Dulce—OIL WELL—H. C. Pyle, ...Corpus Christi, drilling, developing ... test oil well.

...Alba—OIL WELL—Plains Production ...wer Petroleum Bldg., Dallas, drilling, ...developing 9,000 ft. test oil well.

Tex., Albany—OIL WELL—Harry Hines & Associates, Gulf State Bldg., Dallas, drilling, developing 2,000 ft. test oil well.

Tex., Andrews—OIL WELL—The Texas Co., 1700 San Jacinto St., Houston, drilling, casing with 13 in. pipe, developing new 6,000 ft. test oil well.

Tex., Antelope—OIL WELL—Standard Oil Co. of Texas, Hanlon-Buchanan Oil Co., and Antelope Oil Co., Petroleum Bldg., Houston, drilling, casing, developing 6,000 ft. test oil well.

Tex., Big Spring—OIL WELL—J. B. Hawley, Jr., 912 College St., Fort Worth, drilling, casing, developing three 3,200 ft. oil well tests.

Tex., Bledsoe—OIL WELL—Seaboard Oil Co., Commerce Bldg., Houston, drilling, developing new 5,500 ft. oil well.

Tex., Bowie—OIL WELL—Gulf Oil Corp., Gulf Bldg., Houston, drilling, casing, developing new 6,000 ft. test oil well.

Tex., Bryan—OIL WELL—L. A. Grelling, et al, drilling, casing, developing new 5,500 ft. test oil well.

Tex., Carthage—OIL WELL—W. C. Feazel & N. V. Kinsey Carthage, drilling, developing another 6,000 ft. oil well test.

Tex., Chillicothe—OIL WELL—Humble Oil & Refining Co., Humble Bldg., Houston, 8,500 ft. oil well, supply lines, $25,000.

Tex., Crane—OIL WELL—Atlantic Refining Co., Esperson Bldg., Houston, 3,500 ft. rotary type test oil well.

Tex., Dallas—IMPROVEMENTS—City, imprvs.

★ **Tex., Dallas** — IMPROVEMENTS — V. R. Smitham, city mgr., imprvs., bldgs., etc., near here. $5,000,000. Will apply for CAA or other federal funds. Rollins & Forrest, 818 Praetorian Bldg., engrs. CD 5/4—ENR 5/6.

Tex., Emory—OIL WELL—Humble Oil & Refining Co., Humble Bldg., Houston, 7,500 ft. test oil well.

Tex., Encinal—OIL WELL—Adams Oil & Gas Co., Esperson Bldg., Houston, drilling, developing deep test oil well.

Tex., Falfurrias—OIL WELL—Sun Oil Co., and Humble Oil & Refinery Co., Humble Bldg., Houston, drilling, casing, developing oil well.

Tex., Freer—OIL WELL—Continental Oil Co., Eagle Ford Bldg., Dallas, drilling, developing new 3,500 ft. test oil well.

Tex., Gainesville—OIL WELL—Snuggs McGeorge, et al, drilling, developing 4,500 ft. test rotary type oil well.

Tex., Helena—OIL WELL—Indianola Oil Co., Beeville, drilling, developing new 9,000 ft. oil well test.

Tex., Iraan—OIL OR GAS WELLS—Plymouth Oil Co., Waggoner Bldg., Fort Worth, drilling, casing, developing 3 new 2,500 ft. oil or gas wells.

Tex., Iraan—PIPELINE—E. J. McCurdy, Fair Bldg., Fort Worth, laying 2½ in. pipeline connecting 4 wells and main pipeline.

Tex., Jacksboro—OIL WELL—E. O. Gilbert & Associates, drilling, developing new 6,500 ft. test oil well.

Tex., Jacksboro—OIL WELL—Rathke Oil Co., Jacksboro, drilling, developing new 4,800 ft. oil well test.

Tex., Jonesville — OIL WELL — Siosi Co., Waggoner Bldg., Fort Worth, drilling, developing test oil well.

Tex., Lockridge—OIL WELL—Grubb & Hawkins, Esperson Bldg., Houston, drilling, developing new deep test oil well.

Tex., Loraine—OIL WELL—Standard Oil Co. of Texas, Petroleum Bldg., Houston, drilling, developing deep test oil well.

Tex., McAllen—PIPELINES, etc.—Coastal Refineries, Inc., et al, Alamo National Bldg., San Antonio, gathering pipelines radiating from several wells. $25,000.

Tex., Monahans—OIL WELLS—Shell Oil Co., Deere Park, Houston, drilling, developing 2 deep test oil wells.

Tex., Needville—OIL WELL—Harold Link & Associates, Esperson Bldg., Houston, developing 6,000 ft. test oil well.

Tex., Olney—OIL WELL—R. C. Lipscomb, et al, New Castle, drilling, developing new deep test oil well. $25,000.

Tex., Placedo—OIL WELL—Superior Oil Co. of Oklahoma, Oil & Gas Bldg., Houston, drilling, casing, developing another 7,500 ft. test oil well, necessary fuel lines, ground storage, etc.

Tex., Randado—OIL WELL—Texas Co., 1700 San Jacinto St. Houston, drilling, developing oil well.

Tex., San Ignacio—OIL WELL—Texas Co., 1700 San Jacinto St., Houston, drilling, developing new oil well, storage, ground, facilities.

Tex., Sejita—OIL WELL—R. C. Lipscomb Co., San Diego, drilling, developing new oil well.

Tex., Sejita—OIL WELL—Trinity Gas Corp., et al, Corpus Christi, drilling casing, developing deep test oil well.

Tex., Stamford—OIL WELL—Hunter & Hunter, Wichita Falls, drilling, developing 5,200 ft. oil well.

Tex., Terrell — IMPROVEMENTS — Terrell Aviation School, cancelled bids, imprvs., asphalt and concrete paving runways and taxiways. Will readvertise. CD 8/23—ENR 8/26.

Tex., Throckmorton—OIL WELL—Shell Oil Co., Deere Park, Houston, developing new 5,400 ft. oil well, ground storage facilities.

Tex., Vega—OIL WELL—Stanolind Oil & Gas Co., Fair Bldg., Ft. Worth, drilling, developing 7,500 ft. oil well.

Tex., View—OIL WELL—Forster & Roberts, Abilene, drilling, casing, developing new deep test oil well.

Tex., Warren—OIL WELL—Humble Oil & Refining Co., Humble Bldg., Houston, 8,500 ft. oil well test.

Tex., Wichita Falls—OIL WELL—Ohio Oil Co., Oil & Gas Bldg., Houston, drilling, developing new 4,300 ft. test oil well.

Tex., Wink—OIL WELL—Gulf Oil Co., Gulf Bldg., Houston, drilling, developing new 9,600 ft. oil well.

†Washington—ELECTRICAL SYSTEM, etc. —U. S. Eng., 800 3 Ave., Seattle, Zone 4, electrical, water and sewerage sys., Neg. 752, Clallam Co.

†Washington—FENCE REMOVAL, etc.— U. S. Eng., 800 3 Ave., Seattle, Zone 4, removing existing fence and constructing wooden fence, Neg-749, King Co.

†Washington—GAS CHAMBER—U. S. Eng., 800 3 Ave., Seattle, Zone 4, gas chamber, Neg-733, Pierce Co.

†Washington—IMPROVEMENTS—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., imprvs. $21,015.

†Washington—STORAGE FACILITIES, etc. —U. S. Eng., 800 3 Ave., Seattle, Zone 4, storage facilities, Neg-737; storage shed and unloading platform, Neg-737, both King Co.

†Wash., Yakima—RUNWAY SURFACING— Civil Aeronautics Admin., Boeing Field, Seattle, runway surfacing. $125,000.

Wis., Hager—AIRPORT—City of Red Wing, Minn., H. E. Nordholm, clk., airport, near here. Over $25,000. City may hold special bond election for same.

Wis., Medford — IMPROVEMENTS — H. Reusch, clk., Taylor Co., imprvs. Over $25,000.

British Columbia — NAVY BASE — British Government, London, England. Royal Navy Base on Pacific Coast.

B. C., New Westminster—PARK—Municipality, developing 10 acre site adjoining Pacific Coast Terminals for park purposes, $35,000. City associated with Canadian Natl. Rys., H. A. Dixon, ch. engr., (oper.), 360 McGill St., Montreal, Que., engrs.

N. B., St. John—RECREATIONAL CENTRE—Municipality, recreational centre, old bldgs. and appurtenances replacement, bridge structures made permanent, driveways paved and widened, in Rockwood Park. $50,000.

Que., Montreal—PARK IMPROVEMENT— J. A. Mongeau, municipality clk., imprv. Drummond Park and playground on McEvoy farm. $35,000.

BIDS ASKED

Bids Asked After September 15

†Tex., El Paso — AIRPORT — Civil Aeronautics Admin., Box 1689 Fort Worth, Zone 1, airport imprvs., Proposal No. 444-260. Bids 8/20 for Schedules 1 and 2 rejected. CD 8/24 —ENR 8/26, under LB.

Bids Asked September 20

†Me., Portland — IMPROVEMENTS — Civil Aeronautics Admin., P. O. Box 636, La Guardia Field, Jackson Heights, N. Y., imprvs., clearing, grading, draining, paving. Proj. 14-249.

N. J., Elizabeth—SWIMMING POOL—City, City Hall, Dowd Swimming Pool, repairs, alterations. $25,000. Plans deposit $25.

N. Y., Jackson Heights—LANDING PLATFORM REPAIRS, etc.—Comr. Marine & Aviation, Pier A, foot of Battery Pl., North River, New York, repairing loading platforms, enclosures and equipment at Land Plane Admin. bldg., New York Municipal Airport, La Guardia Field, Queens Boro, Contr. 2388. Plans deposit $1.

Bids Asked September 22

†Pa., Johnstown — AIRPORT IMPROVEMENTS—Civil Aeronautics Admin., La Guardia Field, Jackson Heights, N. Y., airport imprvs. CD 8/9—ENR 8/12.

Bids Asked September 23

N. Y., New York—TEST BORINGS—Comr. Parks, office Dpt. Parks, Arsenal Bldg., Central Park, 5 Ave. and 64 St., New York, test borings for proposed jetties and boardwalk, exten. in Orchard Beach, Pelham Bay Park, Bronx Boro, Contr. X-39-243.

Bids Asked September 24

†Wis., Janesville—AIRPORT—Civil Aeronautics Admin., 608 S. Dearborn St., Chicago, Ill., airport clearing, grubbing, 605,000 cu. yd. grading, storm sewers, etc., for Rock Co. and CAA. Plans deposit $25. CD 6/22—ENR 6/26.

Bids Asked About October 1

†Maryland—IMPROVEMENTS—U. S. Eng., Camp Springs Meadows, imprvs., paving, Prince Georges Co.

UNCLASSIFIED (Bids Asked, Cont'd.)

Bids Asked

†**Conn., Windham**—AIRPORT—Civil Aeronautics Admin., Box 636, LaGuardia Field, Jackson Heights, N. Y., airport, incl. clearing, grading, drainage work, paving, etc., Proposal 14-233. Extended date. Plans deposit $10 each set. CD 8/31—ENR 9/2.

†**Massachusetts** — GRADING, etc. — U. S. Eng., 31 St. James Ave., Boston, grading, constructing gravel walks, planting, No. 19-023-44-Neg-49, Plymouth Co. Under $50,000.

†**Neb., Norfolk**—AIRPORT PAVING—Civil Aeronautics Admin., 410 E. 12 St., Kansas City, Mo., airport paving. Bids 8/16 rejected. CD 9/8—ENR 8/26, under LB.

★ **Texas**—PIPELINE CARRIER—Magnolia Pipe Line Co., Esperson Bldg., Houston, 394 mi. 12 in. pipeline carrier between Midland and Corsicana. $7,000,000. CD 7/20—ENR 7/22.

LOW BIDDERS

†**Ala., Brewton** — AIRPORT — Civil Aeronautics Admin., 80-86 Marietta St. N. W., Atlanta, Ga., Sept. 6, airport facilities, from C. M. Ford Constr. Co., LaFayette, **$469,000.** CD 8/25.

†**Arizona**—DUST CONTROL—U. S. Eng., 751 S. Figueroa St., Los Angeles, 14, Calif., dust control by mulching and oilling, No. 175, Pima Co., from Arizona United Constructors, P. O. Box 351, Tucson, **$50,000-$60,000.**

†**Colorado**—IMPROVEMENTS—U. S. Eng., 909 17 St., Denver, imprvs., Pueblo Co., from Pieter Klewit Sons Co., 1025 Omaha National Bank Bldg., Denver, **$410,000.**

†**Louisiana**—IMPROVEMENTS—U. S. Eng., 25 St. and Avenue F, Galveston, Tex., Sept. 6, imprvs., exten. watermains, Orleans Parish, from Kelly-Generes Const. Co., 135 Carondelet St., New Orleans, under **$50,000.** CD 9/8, under Waterworks.

†**Nevada** — IMPROVEMENTS — U. S. Eng., 751 S. Figueroa St., Los Angeles, 14, Calif., imprvs., Solic. No. 163, Clark Co., from Gibbons & Reed, 1250 Carmen Dr., Glendale, Calif., over **$50,000.**

CONTRACTS AWARDED

†**Arizona**—DUST CONTROL—U. S. Eng., 751 S. Figueroa St., Los Angeles, 14, Calif., dust control by mulching and graveling, No. 190, Yuma Co., to Tanner Constr. Co., 731 N. 19 Ave., Phoenix, **$20,000-$30,000.**

†**Arizona**—IMPROVEMENTS—U. S. Eng., 751 S. Figueroa St., Los Angeles, 14, Calif., imprvs., bldg., No. 143, Mohave Co., to Jacobson & Wikholm, 1614 Wellington Rd., Los Angeles, Calif., **$30,000-$40,000.**

†**California**—FIRE PROTECTION FACILITIES—U. S. Eng., 74 New Montgomery St., San Francisco, fire protection facilities, Job No. 1109, San Francisco Co., to J. Strizek, 1915 Bway., Oakland. Est. under **$25,000.** Awarded 9/3. CD 9/6—ENR 9/9.

★ †**California** — IMPROVEMENTS — U. S. Eng., 751 S. Figueroa St., Los Angeles, Zone 14, imprvs., No. 1255, Riverside Co., to Bressi & Bevanda Constructors, Inc., 208 W. 8 St., Los Angeles, over **$500,000.** Awarded 9/7. CD 5/11—ENR 5/13, under LB.

†**California**—STORAGE AREA—U. S. Eng., 74 New Montgomery St., San Francisco, storage area, Spec. 1036, San Francisco Co., to Independent Constr. Co., Ltd., Clement St. and 46 Ave., Oakland, est. over **$100,000.** Awarded 9/7.

†**California**—SWIMMING POOL—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., swimming pool, M.C.A.B., Kearney Mesa, NOY 6834, to Ben F. Smith Co., 333 S. Rosemead Blvd., Pasadena, **$107,-460.**

†**California**—TRAINING AIDS—U. S. Eng., 751 S. Figueroa St., Los Angeles, Zone 14, training aids, San Luis Obispo Co., to A. C. Dinsmore & J. L. McCoy, 909 Carpenteria St., Santa Barbara, **$20,000-$30,000.** Awarded 9/2.

†**Calif., El Centro** — SWIMMING POOL — Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., swimming pool, MCAS, NOY 6516, to R. J. Daum, 6803 W. Blvd., Inglewood, **$105,341.**

†**Calif., Hunters Point**—FUEL OIL STORAGE—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., fuel oil storage, NOY 6779, to MacDonald & Kahn, Financial Center Bldg., San Francisco, **$35,676.**

†**Calif., San Diego**—TRAINING POOL—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., training pool, Camp Dunlap, NOY 6961, to W. J. Distell, 3110 W. 43 St., Los Angeles, **$107,836.**

†**Calif., Santa Barbara**—SWIMMING POOL—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., swimming pool, MCAS, NOY 6519, to B. F. Smith Co., 333 S. Rosemead Blvd., Pasadena, **$109,-006.**

†**Delaware** — PARADE GROUNDS — U. S. Eng., 6 and Walnut Sts., Phila., Pa., parade grounds, Contr. 697-Eng-4909, Sussex Co., to George & Lynch, Delaware Trust Bldg., Wilmington, **$30,000.**

†**Florida**—FENCES—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, fences, Neg-Jax-44-129, Taylor Co., to Paul Smith Constr. Co., 320 Rome Ave., Tampa, Zone 1, under **$50,000.** Awarded 8/30.

†**Florida**—IMPROVEMENTS—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, imprvs., treatment of overrun areas, Neg-Jax-44-167, Lee Co., to Cleary Bros. Constr. Co., Georgia Ave., West Palm Beach, under **$90,000.** Awarded 9/7.

†**Florida**—TARGET RANGES—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, target ranges, Neg-Jax-44-120, Taylor Co., to Paul Smith Constr. Co., 320 Rome Ave., Tampa, Zone 1, under **$50,000.** Awarded 8/30.

†**Florida**—VENTILATING SYSTEM—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, ventilating sys., Neg-J.A.O.-44-1, Clay Co., to Florida Weather Makers, Inc., 805 Hogan St., Jacksonville, Zone 2, under **$50,000.** Awarded 9/4.

†**Fla., Jacksonville**—TREE CLEARANCE—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., to Wannamaker & Wells, Inc., Orangeburg, S. C., tree clearance, NAS, Switzerland Field, NOY 6981, **$66,460**; NAS, Lee Field, NOY 7014, **$53,950**; NAS, Whitehouse Field, NOY 7013, **$68,000.** Grand total **$188,410.**

†**Georgia** — IMPROVEMENTS — U. S. Eng., Post Office Bldg., Savannah, imprvs., water and sewer work, Bibb Co., to J. B. McCrary Co., 22 Marietta Bldg., Atlanta, about **$50,000.**

†**Idaho**—CONSTRUCTION—U. S. Eng., Pittock Blk., Portland, Ore., miscellaneous construction, Elmore Co., to J. A. Terteling & Sons, Robert Noble Bldg., Boise. **$35,000.**

†**Indiana**—CLEARING, etc.—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave., N. W., Wash., D. C., clearing, grading, surfacing, etc., NAD, NOY 6683, to Ralph Rogers & Co., Bloomington, **$344,522.**

†**Iowa**—IMPROVEMENTS—U. S. Eng., 1709 Jackson St., Omaha, Neb., imprvs., bldg., Woodbury Co., to C. Hansen, 3822 Ridge Ave., Sioux City, under **$50,000.**

†**Kansas**—IMPROVEMENTS—U. S. Eng., 10 E. 17 St., Kansas City, Mo., imprvs., paving, Shawnee Co., to Koss Constr. Co., Old Colony Bldg., Des Moines, Ia. Est. under **$500,000.**

†**Louisiana**—CONSTRUCTION—U. S. Eng., 25 St. and Avenue F, Galveston, Tex., construction, Jefferson Parish, to Stephens Brothers and the Miller Hutchison Co., 730 Gravier St., New Orleans, **$40,000.**

†**Maryland**—TRAINING AIDS—U. S. Eng., Standard Oil Bldg., Baltimore, training aids, Contr. 18-020-Eng-8, Anne Arundel Co., to Cummins Constr. Corp., 803 Cathedral St., Baltimore, **$70,000.**

†**Massachusetts**—FACILITIES—U. S. Eng., 31 St. James Ave., Boston, facilities, Contr. 19-023-Eng-37, Essex Co., to Florence Co., North Reading, **$40,000.**

†**Mass., South Weymouth**—FACILITIES—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., completion of L-T-A facilities, under NOY 4962, NAS, NOY 7206, to Sawyer Constr. Co., and N. Barletta Co., 31 St. James Ave., Boston. Additional to 9/9/42, under CA.

†**Mich., Grosse Ile**—LANDING MATS—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., landing mats at outlying field, NAS, NOY 6560, to Cooke Contg. Co., Penobscot Bldg., Detroit, **$199,100.**

†**Mississippi** — FACILITIES — U. S. Eng., Grant St., west of Westwood St., Mobile, Ala., facilities, Contr. 569-Eng-5296, Forrest Co., to C. H. Treadwell, 1523 Centenary Blvd., Shreveport, La., **$40,000.**

†**Mississippi**—IMPROVEMENTS—U. S. Eng., Grant St., west of Westwood St., Mobile, Ala., imprvs., addnl. sewage disposal facilities, Inv. 569-44-72, Harrison Co., to T. H. Snead, Gulfport, under **$50,000.** Bids 9/2, awarded 9/4.

†**Mississippi**—IMPROVEMENTS—U. S. Eng., Grand St., west of Westwood St., Mobile, Ala., imprvs., miscellaneous roads, Inv. 569-44-54, Harrison Co., to Murphy Constr. Co., Gulfport. Under **$50,000.** Bids 8/25, awarded 9/2.

†**Nebraska**—IMPROVEMENTS—U. S. Eng., 1709 Jackson St., Omaha, imprvs., bldgs., Lancaster Co., to E. E. Gilmore Co., 1207 N. 11 St., Omaha. Est. under **$50,000.**

†**Nebraska**—IMPROVEMENTS—U. S. Eng., 1709 Jackson St., Omaha, imprvs., Scottsbluff Co., to Plains Constr. Co., Cheyenne, Wyo. Est. under **$50,000.**

†**Nebraska**—IMPROVEMENTS—U. S. Eng., 1709 Jackson St., Omaha, imprvs., roads, Thayer Co., to Abel Constr. Co., 900 N. 16 St., Lincoln. Est. under **$50,000.**

†**New Hampshire**—WHARF—U. S. Eng., 31 St. James Ave., Boston, Mass., concrete, timber wharf exten., No. 19-023-44-Neg-37, Rockingham Co., to E. C. Snodgrass, 169 State Pier, Portland, Me. Est. under **$50,000.** CD 8/31—ENR 9/2.

†**New Jersey**—PIER, etc.—Bethlehem Steel Co., foot of 14 St., Hoboken, pier and docks, Hudson Co., to Merritt-Chapman & Scott, 17 Battery Pl., New York, N. Y., **$50,000.** Federally financed.

★ †**N. J., Woodbine** — AIRPORT IMPROVEMENTS—Civil Aeronautics Admin., LaGuardia Field, Jackson Heights, N.Y., schedules 1 and 2, airport improvements, to Grand Co., 6 Grand View Ave., Metuchen, N.J., **$568,699.** Formal signing of contract and upon assignment of priority rating and allocation of additional funds. CD 8/31—ENR 9/2.

†**New Mexico** — IMPROVEMENTS — U. S. Eng., Comm. Bldg., Albuquerque, N. M., Sol. W 29-005-Eng-44, to Current Bros., 742 Metropolitan Bldg., Minneapolis, Minn., approx. $105,000. Bids received, awarded 9/4. CD 9/8—ENR 9/9.

†**New York**—YARD, etc.—U. S. Eng., 90 Wall St., New York, N. Y., yard and facilities, Contr. 30-075-Eng-52, to Richmond Contg. Co., Chas. F. Vachris, Inc., 827 Remsen St., Brooklyn, **$100,000.**

†**North Carolina**—CLEARING, etc.—U. S. Eng., 308 Customhouse, Wilmington, N. C., grubbing, preparation, etc., Iden, Sampson Co., to Richmond Co., to F. D. Cline, Fairview Rd., Raleigh, under $50,000. Est. under $50,000. Awarded 8/30.

†**North Carolina**—IMPROVEMENTS—U. S. Eng., 308 Customhouse, Wilmington, N. C., paving, drainage, Carteret Co., to F. D. Cline, Fairview Rd., Raleigh, under $50,000.

†**N. C., Elizabeth City**—RUNWAYS, etc.—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., to Warren Bros., Roads Co., Memorial Dr., Cambridge, Mass. $417,000.

†**Ohio** — ELECTRICAL INSTALLATION—U. S. Eng., 700 Union Guardian Bldg., Detroit, 31, Mich., electrical installation, to Allen Co., to J. Livingston Co., Inc., Buffalo St., Detroit, Mich., less than $1,000.

†**Ohio**—RAILROAD TRACKS, etc.—U. S. Eng., 700 Union Guardian Bldg., Detroit, Mich., railroad tracks, related drainage facilities, Allen Co., to Jones Contracting Co., Highland Park, Mich., less than $1,000.

†**Ohio**—SPRINKLER SYSTEM—U. S. Eng., 700 Union Guardian Bldg., Detroit 31, Mich., sprinkler sys., Cuyahoga Co., to Automatic Sprinkler Co., Brittain St., Youngstown, O., less than **$1,000,000.**

†**Oklahoma**—ELECTRICAL DISTRIBUTION SYSTEM—U. S. Eng., 416 Wright Bldg., Tulsa, Okla., Zone 2, electrical distr. sys., Okla. Co., to Bowers & Lundgren, Lawton, Okla., under **$50,000.**

†**Oklahoma**—TARGETS—U. S. Eng., 416 Wright Bldg., Tulsa, Zone 2, targets, Contr. 957-Eng. 2081, Muskogee Co., to Ottinger & Petroleum Bldg. Oklahoma City. $60,000. 8/20—ENR 8/26.

†**Oregon**—FACILITIES—U. S. Eng. Pittock Blk., Portland, facilities, Contr. 35-026-34, Benton Co., to E. H. Batterman, Salem, **$30,000.**

†**Oregon**—HARDSTANDINGS—U. S. Eng., Pittock Blk., Portland, hardstandings, Contr. 35-026-Eng-33, Multnomah Co., to Parker-Schram Co., Couch Bldg., Portland. $40,000.

Pennsylvania—NATURAL GAS DEVELOPMENT, etc.—Appalachian Development Co., Hooker-Fulton Bldg., Bradford, potential Oriskany sand natural gas area, and drilling unspecified number 4,500 ft. wells, West McKean Co., to J. H. Flanagan, Bradford. Est. **$50,000.**

†**R. I., Newport**—TORPEDO TOWER CASEMENT—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., concrete encasement of submersible torpedo towers, Naval Torpedo Sta., Goold Island, NOY 7056, to Foundation Co., 120 Liberty St., New York, N. Y., **$70,370.**

†**S. C., Charleston**—GASOLINE SYSTEM—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., gasoline dist. sys., NAS, NOY 6428, to Norris Constr. Co., Greenville, **$55,184.**

†**Texas** — IMPROVEMENTS — U. S. Eng., Albuquerque N. M., imprvs., addnl. parking aprons, Ward Co. to Nolan Brothers, Inc., Metropolitan Bldg., Minneapolis, Minn., under **$500,000.** Awarded 9/8.

†**Texas**—IMPROVEMENTS—U. S. Eng., Fort Sam Houston, imprvs., Bexar Co., to Cage Bros. and Palmer & Winters, San Antonio Bldg. Exchange, San Antonio, **$400,000.**

†**Texas** — IMPROVEMENTS — U. S. Eng., Fort Sam Houston, imprvs., Bexar Co., to H. B. Zachry Co., Box 596, San Antonio, **$200,000.**

†**Texas**—IMPROVEMENTS—U. S. Eng., W. Main St., Denison, imprvs., addnl. construction, Cook Co., to J. K. Nash, Bradley Bldg., Oklahoma City, Okla., $42,000.

†**Texas**—IMPROVEMENTS—U. S. Eng., St. and Avenue F, Galveston, imprvs., addnl. storage facilities, Sol. 359-44-C25, Travis Co., to Aqua Systems, Inc., 382 Gerard St., New York, 51, N. Y., **$30,000.** CD 8/26—ENR 9/3.

†**Texas**—IMPROVEMENTS—U. S. Eng., St. and Avenue F, Galveston, imprvs., paving, Galveston Co., to Austin Road Co., 1613 Cotence St., Dallas, approx. $50,000.

†**Texas**—LIGHTING DISTRIBUTION SYSTEM—U. S. Eng., 231 W. Main St., Denison, side lighting distr. sys., Dallas Co., to N. Busby & Co., N. Main St., Dallas. $36,000.

SSIFIED (Contracts Awarded, Cont'd.)

Devers—OIL WELL—Wm. Hells & ..., Gulf Bldg., Houston, drilling, cas... developing deep test oil well, to Housh ...pson Drilling Co., Gulf Bldg., Hous... prox. $25,000.

Jonesville—OIL WELL—The Sloss ...rkburnett Bldg., Ft. Worth, oil well. ...less Drilling Co., Ardis Bldg., Shreve... approx. $25,000.

Llano — IMPROVEMENTS — Llano ...prvs., incl. paving, grounds develop... etc., to McKown & Sons, Llano, ... CAA. CD 9/6—ENR 9/9.

McAllen—GATHERING PIPELINES— ...Refineries, Inc., Alamo National Bldg., ...tonio, gathering pipelines from several ...s, force account. $50,000.

McAllen—OIL STORAGE TANKS— ...Refineries Inc., Alamo National Bldg., ...tonio, crude oil storage tanks. Owner $60,000. CD 9/1.

Chincoteague — TAXISTRIPS — Yards ...s Navy Dpt., 18 St. and Constitution ...W., Wash., D. C., concrete taxistrips, NOY 6815, to George & Lynch, Delaware Bldg., Wilmington, Del., $56.000.

...shington — CONSTRUCTION — U. S. ..., 800 3 Ave., Seattle 4, addnl. con... ...n, Grant Co., to McAtee & Heathe, ... 3527 Trent Ave., Spokane, $500,000.

...shington — IMPROVEMENTS — U. S. ...00 2 Ave., Seattle, Zone 4, imprvs., ... Co., to Concrete Constr. Co., 1635 S. E. ... Portland, Ore., $100,000.

... Frank Lake — IMPROVEMENTS — ...ransport, Ottawa, Ont., imprvs., grad... ...soothing, rolling, for E.F.T. School, to ... Brothers & Co., Ltd., Calgary, about ...

... Gladys — IMPROVEMENTS — Dpt. ...rt, Ottawa, Ont., imprvs., grading, ...ing, rolling, fencing, road imprvs., to ...da Engineering Co., Ltd., Calgary, $73,000.

... Tofino — IMPROVEMENTS — Dpt. ...rt, Ottawa, Ont., imprvs., hardsurfac... ...ways, to Evans, Coleman & Evans, ...t of Columbia St., Vancouver, about ...

... Vancouver—IMPROVEMENTS—Dpt. ...rt, Ottawa, Ont., imprvs., grading, ... dragging, smoothing, fertilizing, sod... ...fencing, hardsurfacing taxi strip and ... drainage, to Columbia Bitulithic, ...Granville Island, Vancouver, about ...

... Vancouver—TERMINAL YARD—Van... ...Victoria & Eastern Ry. and Navigation ...in and National Aves., imprv. terminal ...incl. concrete pavement, 7,600 cu. yd. ... wharf, team tracks, etc., day labor. ...

... Dartmouth—DRYDOCK—Dpt. Natl. ...e (Sea), Ottawa, Ont., marine railway ... to Atlantic Const. Co. Ltd., Ray ...Barrington St., Halifax, $46,000.

... Dartmouth—RAILWAY—Dom. Gov... ...t. Ottawa, Ont., marine railway, to ...ll Marine Railway Co., Inc., 238 Main ...ston, Mass., U. S. A. Est. $250,000. ... Shipyards Ltd., 7 Young St., Hali... ...ht.

...e—IMPROVEMENTS—Dpt. Transport, ..., Ont., addnl. development imprvs., ... drainage, hardsurfacing taxi and ...s. L'Ancienne Lorette, to Belmont ... Co., Ltd., 679 Belmont St., Montreal, $200,000.

... Montreal—SHEDS—Dom. Govt., Ot... ...Ont., remodeling sheds, to Deakin & ...t Ltd., 1440 W. Ste. Catherine St., ... Dpt. of Naval Affairs, Cartier Sq., ... Ont., archts.

... St. Maurice—IMPROVEMENTS—Dpt. ...ort, Ottawa, Ont., develop, imprvs., ...g, stumping smoothing and drainage, ...e Equipment & Constr. Co., Ltd., ...ruig St., Three Rivers, $50.000.

... Davidson West—IMPROVEMENTS— ...Transport, Ottawa, Ont., imprvs., clear... ...rading, smoothing, fencing, road gravel, ...de Brothers, Ltd., Dundurn, Sask., $53,000.

LATIN AMERICA

...il—State of Santa Catharina, plans ex... ...g approx. $1,131,085 for construction, im... ...ent port of Sao Francisco.

...co—Mexican Government, Treasury Dpt., ... City, D. F., plans series of dams in ... and Sinaloa states to irrigate 3,000,000 ...f Culiacan Valley, base to be at Sana... $50,000,000.

...co—National Railways of Mexico (Fer... ...ies Nacionales de Mexico), 19 Bolivar ...rico City, L. F. Reina, ch. engr. M. W., ...Margarito Ramirez., genl. mgr., plans state-wide rehabilitation of railroads, ...aintenance, new equip. $12,000,000.

...co—Vera Cruz Cement Co., Inc., Orizaba ...Cruz), takes bids within 30 days, con... ...g cement plant, incl. roads, railroad ... involving moving plant of Marquette ... Mfg. plant, LaSalle, Ill., U. S. A. Est. ...000.

Mexico—National Railways of Mexico (Ferrocarriles Nacionales de Mexico), 19 Bolivar St., Mexico City, L. F. Reina, ch. engr. M. W., will rehabilitate railroads mostly maintenance, laying heavier rails, better ties, own forces under direction of Margarito Ramirez, genl. mgr. $1,000,000. CD 7/29—ENR 8/19.

Mexico, Mexico City — Alejandro Aguilar Reyes, c/o La Aficion, Mexico City, awarded contract constructing brick, stone, tile, La Aficion newspaper bldg., Ignacio Naciscal Rosales, to Jose Luis Mendez, Bucarell and Donato Guerra Sts., Mexico City, DF, $150,000.

Mexico, Mexico City—Emilio Azcarraga, 54 Ayuntamiento St., takes bids in October, constructing new radio station for XEW near Chapultepec Park. $800,000.

Mexico, Mexico City—Mexican Government, National Palace, Mexico City, awarded contract constructing annex to government group of bldgs. in heart of city, to Pascal Ortiz Rubio and Marine Port & Works, Inc., 505 Monte Altai, Mexico City, D. F., $250,000. Pascal Ortiz Rubio, 505 Monte Altai, Mexico City, DF, engr.

PUBLIC BUILDINGS

PROPOSED WORK

†**Alabama**—U. S. Eng., Grant St. west of Westwood St., Mobile, rejected bids Aug. 28, bldgs., Pickens Co. $75,000.

†**Arizona**—Pub. Housing Auth., NHA, 785 Market St., San Francisco, Calif., family dwelling units, Ariz. 2331 and Ariz. 2332.

†**California**—City of Oakland Housing Auth., 935 Union St., Oakland, plans by J. J. Donovan, 950 Parker St., Berkeley, housing units, Calif. 4749, Calif. 4770 and Calif. 4771, for NHA. CD 8/17—ENR 8/19.

★†**California** — Cutter Laboratories, Inc., Berkeley, plant facilities. $600,000. Defense plant Corp. will finance.

†**California**—Douglas Aircraft Co., Inc., 300 Ocean Blvd., Santa Monica, addnl. plant facilities. $250,000. Defense Plant Corp. will finance.

†**California**—Pub. Housing Auth., NHA, 785 Market St., San Francisco, plans by David H. Horn, 564 Market St., San Francisco, community bldg., for housing, Calif. 4511.

†**California**—Pub. Housing Auth., NHA, 785 Market St., San Francisco, plans by K. Narbett, 564 Market St., E. T. Spencer, 369 Pine St. and E. Geoffrey Bangs, 605 Market St., San Francisco, stop-gap (portable) dwelling units, Calif. 4761. CD 9/1—ENR 9/9.

†**California**—U. S. Eng., 74 New Montgomery St., San Francisco, bldgs., central California, Job. No. 1006.

†**California**—U. S. Eng., 74 New Montgomery St., San Francisco, military housing, utilities, Job No. 1049, central California.

†**California**—U. S. Eng., 74 New Montgomery St., San Francisco, military housing, Job. No. 1119, San Francisco Co.

†**Calif., Alameda**—Home Owners' Loan Corp., 1440 Bway., Oakland, Zone 12, plans by L. S. Moslas, 255 California St., San Francisco, converting residence at 2017 San Antonio Ave., into 7 living units, Case No. W4D-94. $14,000.

†**Calif., Berkeley**—Home Owners' Loan Corp., 1440 Bway., Oakland, Zone 12, plans by Chas. E. Perry & L. H. Huribut, 821 Market St., San Francisco, converting property into living units, Job W4B-973.

†**Calif., Berkeley**—Home Owners' Loan Corp., 1440 Broadway, Oakland, Zone 12, plans by Ed. T. Foulkes, 357 12 St., Oakland, converting property into 3 living units, Case No. W4B-729. Over $5,000.

†**Calif., Berkeley**—Home Owners' Loan Corp., 1440 Broadway, Oakland, Zone 12, plans by T. L. Pflueger, 580 Market St., San Francisco, converting property into living units, Job No. W4B-1008. Over $5,000.

†**Calif., Berkeley**—Home Owners' Loan Corp., Pacific Bldg., San Francisco, plans by Blanchard, Maher & Ward, 369 Pine St., San Francisco, converting residence at 2736 Haste St., into living units, Case No. W4B-1081. $5,000.

†**Calif., Los Angeles**—Home Owners' Loan Corp., Pacific Bldg., San Francisco, 500 family unit conversion program.

†**Calif., Oakland**—Home Owners' Loan Corp., 1440 Bway., Zone 12, plans by Thomas M. Edwards, 704 Market St., San Francisco, converting property into addnl. living units, Job No. W4B-913.

†**Calif., Oakland**—Home Owners' Loan Corp., Pacific Bldg., San Francisco, plans by C. N. Burrell, 428 16 St., Oakland, converting 3 story, brick office bldg. into 21 living units, Case No. W-4B-320. $40,000.

†**Calif., Oakland**—Home Owners' Loan Corp., Pacific Bldg., San Francisco, plans by C. N. Burrell, 428 16 St., Oakland, converting store bldg., at 4885 Calaveras Ave., into 8 living units, Case No. W4B-400. $16,000.

†**Calif., Redwood City**—Home Owners' Loan Corp., Pacific Bldg., San Francisco, plans by A. D. Janssen, Austin Ave. and Patricia Dr., Atherton, converting residence at 2194 Bway., into 4 living units, Case No. W4C-94

†**Calif., Richmond**—Pub. Housing Auth., NHA, 785 Market St., San Francisco, 600 trailer or portable units, Calif. 4761.

†**Calif., San Diego**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., architectural and engineering services by Gogerty & Barnes, 1717 N. Vine St., Hollywood, bldg., NOY 6995, 7186 and 7190, NOY 7491.

†**Calif., Stockton**—Home Owners' Loan Corp., Pacific Bldg., San Francisco, plans by F. V. Mayo, 3119 N. American St., converting residence at 38 S. El Dorado St., into 8 living units, Case No. W4G-35. $16,000.

†**Calif., Stockton**—Home Owners' Loan Corp., Pacific Bldg., San Francisco, plans by F. V. Mayo, 3119 N. American St., converting office bldg., at 228 N. Sutter St., into 10 living units, Case No. W4G-78. $20,000.

†**Calif., Stockton**—Home Owners' Loan Corp., Pacific Bldg., San Francisco, plans by F. V. Mayo, 3119 N. American St., converting rooming house at 47 S. San Joaquin St., into 8 living units, Case No. W4G-73. $16,000.

†**Calif., Stockton**—Home Owners' Loan Corp., Pacific Bldg., San Francisco, plans by F. V. Mayo, 3119 N. American St., converting lift bldg., at 45 W. Main St., into 5 living units, Case No. W4G-91. $10,000.

†**Colorado**—U. S. Eng., 1709 Jackson St., Omaha, Neb., plans by Prouty Bros., engrs.-archts., Mining Exchange Bldg., Denver, bldg expansion, Eagle Co. Over $150,000.

Conn., Meridien—Dpt. P. Wks., State Capitol, Hartford, power plant conversion. P Bemis, 36 Pearl St., Hartford, engr.

Conn., Norwich—Dpt. P. Wks., State Capitol, Hartford, power plant conversion. H Van Zelm, 11 Asylum St., Hartford, engr.

Conn., Shelton—Dpt. P. Wks., State Capitol, Hartford, plans by Wm. G. Gaylord, 131 Underhill Rd., Hamden, power plant conversion.

†**Delaware**—Pub. Housing Auth., NHA, Temporary Bldg. 2, 19 and D Sts. N.W., Wash., D. C., plans by Geo. S. Idell, 1512 Chestnut St., Phila., Pa., homes, New Castle Co.

†**Delaware**—U. S. Eng., 6 and Walnut Sts., Phila., Pa., bids soon bldgs., New Castle Co. $100,000.

†**D. C., Wash.**—Home Owners' Loan Corp., 2 Park Ave., New York, N. Y., 150 family unit conversion program.

†**D. C., Wash.**—Pub. Housing Auth., NHA, Temporary Bldg. 2, 19 and D Sts. N.W., Wash., D. C., 303 unit permanent dwellings, D.C. 1-13 (formerly included with D. C. 49100). CD 9/9—ENR 9/9.

†**Fla., Pensacola**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., engineering services by Michael Baker, Baker Bldg., Rochester, Pa., at Naval Air Training Center, NOY 7363.

†**Idaho, Bayview**—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave. and Union St., Seattle, 1, Wash., 40 family unit housing, Idaho 10109.

★†**Illinois**—American Radiator and Standard Sanitary Corp., Bessemer Bldg., Pittsburgh, Pa., plant facilities. Approximately $650,000. Defense Plant Corp. will finance.

★†**Illinois**—Republic Steel Corp., Republic Bldg., Cleveland, O., addnl. plant facilities. Approximately $1,245,000. Defense Plant Corp. will finance.

†**Illinois** — Sundstrand Machine Tool Co., 2531 11 St., Rockford, addnl. facilities at plant. $370,000. Defense Plant Corp. will finance.

†**Indiana**—Commercial Solvents Corp., 1331 S. 1 St., Terre Haute, plans by E. B. Badger & Sons Co., engr. and archt., 75 Pitts St., Boston, Mass., penicillin plant. $400,000. Federally financed. Approved by War Production Bd.

†**Indiana**—Phelps Dodge Corp., 40 Wall St., New York, N. Y., plans by W. Jurden, 25 Bway., New York, N. Y., aluminum plant addn. Federally financed.

†**Ia., Des Moines**—Iowa Lutheran School of Nursing, 712 Parnell St., nurses training unit. $73,547. **FWA** allot.

†**Kansas** and **Missouri**—Home Owners' Loan Corp., Woodmen of the World Bldg., Omaha, Neb., 500 family unit conversion program, Kansas City area.

Kan., Wichita—Wichita Hospital plans by Overend & Boucher, Brown Bldg., nurses training center. $105,000. Filed applicaton for FWA funds.

†**Ky., Hopkinsville**—Jennie Stuart Hospital, c/o C. F. McKee, 1st City Bank & Trust Co., plans by J. T. Waller, Hopkinsville, brick, concrete hospital. **FWA.**

†**La., New Orleans**—R. O. Maestri, mayor, cancelled bids to have been opened Sept. 23, health center, La. 16-144, F. Favrot & Reed, Nola Bldg., archts. CD 9/9—ENR 2/4.

†**Maryland**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave., N.W., Wash., D. C., architect-engineering services by J. R. Edmunds and D. R. White, Calvert Bldg., Baltimore, housing project for married personnel, NAS, Patuxent River, NOY 7 258.

★†**Massachusetts**—U. S. Eng., 31 St. James Ave., Boston, sketches completed by Coolidge, Shepley, Bulfinch & Abbot, 1 Court St.,

PUBLIC BLDGS. (Proposed Work, Cont'd.)

Boston, bldgs., **Middlesex Co.** $1,000,000-$5,000,000. CD 8/25—ENR 9/2.

★**†Michigan**—Ford Motor Co., 3674 Schaefer Rd., Dearborn Rd., addnl. facilities at plants. $1,180,000. Defense Plant Corp. will finance.

Michigan—Peoples' Community Hospital, c/o Brender & Van Reyendam, engrs. and architects., 35449 Annapolis St., Wayne hospital bldg., Wayne Co. $250,000.

†Michigan—Pub. Housing Auth., NHA, 2073 E. 9 St., Cleveland, O., plans by Harmon & Simon, 131 Lafayette Blvd., Detroit, temporary family dwelling unit housing, MI 20211. CD 7/28—ENR 8/5.

†Mich., Detroit—Pub. Housing Auth., NHA, 2073 E. 9 St., Cleveland, O., 400 unit family housing, Mich. 20217.

Mich., Homer—Village, Clinton Whetstone, Calhoun Co. School Comr., sketches school bldg. $190,000.

†Mississippi—Pub. Housing Auth., NHA, Georgia Savings Bank Bldg., Peachtree and Broad Sts., Atlanta, Ga., site imprvs., utilities, for trailer housing, Miss. 22175. CD 8/19—ENR 8/26, under CA.

†Missouri—U. S. Eng., 10 E. 17 St., Kansas City, Mo., bids soon remodeling bldg., Buchanan Co. Under $50,000.

†Nebraska—U. S. Eng., 1709 Jackson St., Omaha, housing, Buffalo Co. Under $500,000.

†Neb., Hastings—Home Owners' Loan Corp., Woodmen of the World Bldg., Omaha, 156 family unit conversion program.

★**†New York**—Cheplin Biological Laboratories, Inc., Syracuse, plant facilities. $850,000. Defense Plant Corp. will finance.

N. Y., New York—Dpt. Parks, Arsenal Bldg., Central Park, 5 Ave. and 64 St., plans by G. N. Lawford, 55 E. 93 St., 1 story lunchroom, N. Y. Botanical Gardens. $50,000.

†N. Y., Rochester—Strong Memorial Hospital, 260 Crittenden Blvd., plans by Kaelber & Wasdorp, 311 Alexander St., nurses dormitory addn., alternations. $143,000. **FWA.**

†N. Y., Syracuse—Home Owners' Loan Corp., 2 Park Ave., New York, 150 family unit conversion program.

†North Carolina—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., architect-engineering services by Deitrick & Olsen, 115 W. Morgan St., Raleigh, in connection with low-cost housing, MCAS, Cherry Point, NOY 7437.

†North Dakota—Minot Chemical & Carbon Co., Minot, mfg. plant. $325,000. Federally financed.

★**O., Akron**—Bd. Educ., H. Fleet, clk., 70 N. Bway., plans by M. E. Murphy, 70 N. Bway., trades school, home economics and industrial arts bldg. $2,000,000. Bond election Nov. 2.

†O., Akron—Home Owners' Loan Corp., 209 W. 7 St., Cincinnati, 100 family unit conversion program.

†Ore., Bend—Pub. Bldgs. Admin., 18 and F Sts. N.W., Wash., 25, D. C., remodeling store bldg. for recreation centre. $21,200. **FWA.**

†Ore., Huntington—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave., Union St., Seattle, 1, Wash., 40 family unit housing, Ore. 35275.

†Ore., Myrtle Creek—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave. and Union St., Seattle, 1, Wash., 40 family unit housing, Ore. 35277; 25 trailers or portable shelter unit housing, Ore. 35278.

†Ore., Portland-Wash., Vancouver — Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave. and Union St., Seattle, 1, Wash., 1,000 family unit housing, Ore. 35279.

†Ore., Roseburg—Home Owners' Loan Corp., Pacific Bldg., San Francisco, Calif., 30 unit family conversion program.

†Ore., Roseburg—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave. and Union St., Seattle, 1, Wash., 50 trailers or portable shelter units, Ore. 35276.

†Pennsylvania—Pub. Housing Auth., NHA, 270 Bway., New York, 7, N. Y., family dwellings, Pa. 36439.

†Pennsylvania—Pub. Housing Auth., NHA, 270 Bway., New York, 7, N. Y., plans by G. E. Yundt, 16 S 16 St., Allentown, housing, Pa. 36428 and Pa. 36438 combined project. CD 8/16—ENR 8/19.

★**†Pennsylvania**—Pub. Housing Auth., NHA, 270 Bway., New York 7, N. Y., all operations suspended housing, Pa. 36436. CD 8/18—ENR 8/26, under LB.

†Pennsylvania—U. S. Eng., Standard Oil Bldg., Baltimore, Md., bids soon bldg. addns., incinerator, Butler Co. Prack & Prack, Martin Bldg., Pittsburgh, archts.

†Pennsylvania—U. S. Eng., Indiantown Gap, bldg., Lebanon Co.

†Pennsylvania—U. S. Eng., 6 and Walnut Sts., Phila., bids soon bldg., bridge, etc., Philadelphia Co.

†Pa., Bristol Twp.—Federal Works Agency, 101 Park Ave., New York, 17, N. Y., Junior High School addn. $51,600.

†Pa., Cressona—Home Owners' Loan Corp., 2 Park Ave., New York, N. Y., 50 family unit conversion program.

†Pa., Erie—Hamot Hospital, Erie, plans by Meyers & Johnson, 821 Commerce Bldg., temporary hospital bldg. nurses home and laundry addns. $327,000. **FWA.** CD 3/10—ENR 3/18.

†Pa., Harrisburg—Pub. Housing Auth., NHA, 270 Bway., New York, 7, N. Y., 420 family unit housing, Pa. 36437.

South Carolina—School Dist. 4, North Charleston, plans by Halsey & Cummings, 4 Broad St., Charleston, 3 school bldgs., Charleston Co. $270,000.

★**†S. C., Charleston**—Medical Society of South Carolina, Roper Hospital, Charleston, hospital addn. $800,000. **FWA.** Bids 8/27 rejected. Samuel Hannaford & Sons, Dixie Terminal Bldg., Cincinnati, O., archts. CD 7/30—ENR 8/5.

†S. D., Provo—Bd. Educ. plans by P. C. Bettenburg & Co., 1437 Marshall Ave., St. Paul, Minn., school addn. $157,300. **FWA.** CD 8/3—ENR 8/26.

†Tennessee—Firestone Tire & Rubber Co., Firestone Blvd., Memphis, plant. Federally financed.

†Tennessee—U. S. Eng., Grant St., west of Westwood St., Mobile, Ala., bldgs., Davidson Co.

†Tenn., Millington—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave., N.W., Wash., D. C., architectural-engineering services, by Allied Architects & Engineers, Exchange Bldg., Memphis, naval hospital, NOY 6936.

†Tenn., Memphis—Bd. Educ., c/o O. H. Jones, secy., 217 Poplar St., plans by Furbringer & Ehrman, U. & P. Bank Bldg., Treadwell High School addn., Tenn. 40-250 NF. $164,000. **FWA.**

†Texas—Pub. Housing Auth., NHA, 1205 Electric Bldg., Seventh and Taylor Sts., Fort Worth, rejected bids Aug. 27, dormitory accommodations, Tex. 41593. Will readvertise. Hedrick & Lindsley, 818 Southern Standard Bldg., Houston, archts. CD 8/10, under BA.

†Texas—Pub. Housing Auth., NHA, 1205 Electric Bldg., Seventh and Taylor Sts., Fort Worth, rejected bids Sept. 8, 50 stop-gap units, Tex. 41667. Will readvertise. Consolidated Architects & Engineers, 415 Capps Bldgs., Fort Worth, and E. J. & J. F. Rittenberry, Amarillo, archts. CD 9/3.

★**†Texas**—Pub. Housing Auth., NHA, 1205 Electric Bldg., Seventh and Taylor Sts., Fort Worth, rejected bids Aug. 31, family dwelling units, Tex. 41605 and 41609. Thomas, Sharp, Welch and Goodwin and P. C. Bentley, Construction Bldg., Dallas, archts. CD 9/8, under LB.

†Texas—Pub. Housing Auth., NHA, 1205 Electric Bldg., Seventh and Taylor Sts., Fort Worth, family dwelling units, Tex. 41-134.

†Texas—Pub. Housing Auth., NHA, 1205 Electric Bldg., Seventh and Taylor Sts., Fort Worth, family dwelling units, Tex. 41-145.

Tex., Brownsville—Brownsville Ind. School Dist., brick, concrete public school bldg. $150,000. Applying for FWA funds.

†Tex., Dallas—Pub. Housing Auth., NHA, 1205 Electric Bldg., Seventh and Taylor Sts., Fort Worth, 2,000 family dwelling units, Tex. 41611.

†Tex., Gatesville—Federal Works Agency, 702 Electric Bldg., Fort Worth, plans by J. L. Scott, Littlefield Bldg., Austin, recreation bldg.

†Virginia—U. S. Eng., Newport News, bldg facilities, Warwick Co. $200,000.

†Va., Alexandria — Alexandria Housing Auth., 131 Belvoir St., 130 unit permanent family dwellings, D.C. 4-3, for NHA. Formerly included in D.C.-Va. 44301. CD 9/9—ENR 9/9, under D.C. & Va.

†Va., Arlington—Pub. Housing Auth., NHA Temporary Bldg. 2, 19 and D Sts. N.W., Wash., D. C., 130 unit family dwellings, D.C. 11-1 (formerly included with D.C.-Va. 44301) CD 9/9—ENR 9/9, under D.C. and Va.

†Washington—U. S. Eng., 800 3 Ave. Seattle, Zone 4, bldgs., Negotiations 748 and 747, Grant Co.

†Washington—U. S. Eng., 800 3 Ave. Seattle, Zone 4, bldg., Neg. 731, bldg., Neg. 744, both Spokane Co.

†Wash., Bellingham—Home Owners' Loan Corp., Pacific Bldg., San Francisco, Calif., 30 family unit conversion program.

†Wash., Sedro Woolley—Home Owners' Loan Corp., Pacific Bldg., San Francisco, Calif., 25 family unit housing conversion program.

†Wash., Sunnyside—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave., Union St., Seattle, Zone 1, 200 unit family housing, Wash. 45238.

†Wisconsin—Metal-Mold Magnesium Corp., Cedarburg, plant facilities. $170,000. Defense Plant Corp. will finance.

Que., Montreal—J. A. Mongeau, municipality clk., public bath bldg., Rosemont Ward, also erecting clinic bldg. $150,000.

Que., Plessisville—J. B. Gagnan, archt., 324 Notre Dame St., Thetford Mines, bids early in 1944, 3 story, bsmnt., 60x150 ft., brick, terra cotta trades school rein.-con. fdn., for Commission Scolaire de Plessisville. P. A. Painchaud, Plessisville. About $150,000. CD 6/15—ENR 6/17.

★**Que., Ste Anne De Bellevue**—[illegible] Ottawa, Ont., new [illegible]tal. $500,000. W. H. [illegible] Pensions, Ottawa, Ont. [illegible] Ottawa, Ont., engrs.

BIDS ASKED

Bids Asked After September 16

†New York—Pub. Housing Auth., NHA, Bway., New York, 7, N. Y., prepare [illegible] NY 30032. Plans deposit $25. [illegible] 2 W. 45 St., New York, archt.

Bids Asked September 28

†Massachusetts—Pub. Housing Auth., 24 School St., Boston, [illegible] 19021. M. W. Mallory, [illegible] Springfield, archt.

†Pennsylvania—Pub. Housing Auth., 270 Bway., New York, 7, N. Y. site for housing, Pa. 36241, for Allegheny Housing Auth., Pittsburgh. Plans deposit $20. Extended date

†Pennsylvania—Pub. Housing Auth., 270 Bway., New York, 7, N. Y. tenancy facilities, Pa. 36241, for Allegheny Housing Auth., 201 County Office Bldg., Pittsburgh. Plans deposit $25.

†Pennsylvania—Pub. Housing Auth., 270 Bway., New York, 7, N. Y., [illegible] bldg., Pa. 36152, for Allegheny Co. Housing Auth., 201 County Office Bldg., Pittsburgh. Plans deposit $25.

Bids Asked September 11

†Pennsylvania—Pub. Housing Auth., 270 Bway., New York, 7, N. Y., trade sewer, Pa. 36031. M. C. Krause, [illegible] St., Williamsport, engr.

Bids Asked September 13

†Florida—Pub. Housing Auth., Georgia Savings Bank Bldg., Atlanta, family dwelling units, Fla. $224 and $225. Yonge & Hart, Thiesen Bldg., Jacksonville, archts.

†Ohio—Pub. Housing Auth., NHA, 2073 E. 9 St., Cleveland, temporary family dwelling unit housing, Ohio 23265. Plans deposit $50. Britsch & Munger, Nicholas Bldg., Toledo, archts.

†Oklahoma—Pub. Housing Auth., NHA, 1205 Electric Bldg., Fort Worth, Tex., family dwellings, Okla. 34076. Plans deposit $50. Winkler & Reid, Noftsger, Lawrence & Ellingson, 612 Savings Bldg., Oklahoma City, archts.

Bids Asked September 14

Mich., Atlanta—Mrs. Ruth Cummings, Augusta, 2 story, brick, concrete school for Consolidated Agricultural School, $150,000. Plans deposit $10. Herrick & Simpson, 1003 Bauch Bldg., Lansing, archt.

†Mich., Bay City—Pub. Housing Auth., NHA, 2073 E. 9 St., Cleveland, O., 250 family dwellings, Mich. 20180. Extended tative bid date. O. Winn & P. Brandland Park, archts.

†Texas—Pub. Housing Auth., NHA, Electric Bldg., Seventh and Taylor Sts., Fort Worth, family dwelling units, Tex. 41 Plans deposit $50. Stone & Pitts, Sales and McGinty & Werlin, 2017 W. Gray, Houston, archts.

†Va., Nassawadox—Northampton Accomack Memorial Hospital, Nassawadox, hospital addn. $97,900. **FWA.** A. M. Lisle, Norfolk, archt. CD 8/27—9/2.

Bids Asked September 17

†Michigan—Pub. Housing Auth., NHA 2073 E. 9 St., Cleveland, O., temporary family dwelling unit housing, MI 20205. Plans deposit $50. Mills, Rhines, Bellman & Nordhoff, 518 Jefferson St., Toledo, O., archts. 8/25—ENR 9/2.

†Oklahoma—Pub. Housing Auth., NHA 1205 Electric Bldg., 7 and Taylor Sts., Fort Worth, Tex., family dwellings, Okla. 34076. Plans deposit $50. Senter, Wood & Cole, 307 Philtower Bldg., Tulsa, archts. CD 8/31—ENR 9/2.

Bids Asked September 18

†Fla., Panama City—Federal Works Agency, 18 and F Sts., Wash., 25, D. C., 22 classroom school, Michigan and Magnolia Sts., 8-268. CD 8/6—ENR 8/12.

†Ia., Knoxville—Veterans Admin. Vet. Ave. between H and I Sts. N.W., Wash., D. C., hospital bldgs. Extended $350,000. CD 8/23—ENR 8/26.

†Oregon—Pub. Housing Auth., NHA Skinner Bldg., Seattle, 1, Wash., housing, 35273. P. Belluschi, 2040 S. W. Jefferson, Portland, archt.

†Oregon—Pub. Housing Auth., NHA, Skinner Bldg., Seattle, 1, Wash., housing, 35274. P. Belluschi, 2040 S. W. Jefferson, Portland, archt. CD 8/11—ENR 8/19.

Bids Asked About September 20

★**†N. Y., Sampson**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., addnl. bldgs. NOY 6944. $2,500,000. Shreve, Lamb & Harmon, 14 E. 44 St., New York, archts. CD 9/6.

†Calif., Richmond—Federal Works Agency, 2223 Fulton St., Berkeley, 1 story nursery bldg., Calif. 4-232, for U. S. time Comn., Financial Center Bldg., land. Plans deposit $25.

BLDGS. (Bids Asked, Cont'd.)

Bids Asked September 30

rida—Pub. Housing Auth., NHA. Savings Bank Bldg., Peachtree and Sts., Atlanta, Ga., family dwelling Fla. 4227. Plans deposit $50. F. O. 305 Morgan St., Tampa, archt.

Bids Asked October 1

gon—Pub. Housing Auth., NHA, Skin- Bldg., Seattle, 1, Wash., family housing. 5271. P. Belluschi, 2040 S. Jefferson rtland, archt. CD 8/11—ENR 8/19.

Bids Asked October 2

Falmouth—Pub. Housing Auth., 24 School St., Boston, 100 unit family ex, Mass. 19085. Tentative bid date. McDonough, 168 Dartmouth St., Bos- rch. CD 8/30—ENR 9/2.

Stratford—Pub. Housing Auth., NHA, hool St., Boston, Mass., 40 unit family ngs, Vt. 43053. Tentative bid date. P r, Rutland, Vt., and H. E. Bailey, 177 St., Boston, Mass., archts. CD 8/20— 3726.

Bids Asked about October 6

Kings Park—Comr. Mental Hygiene, Office Bldg., Albany, steam service Veteran's Group, Kings Park State al. Spec. 11612. $105,000. Extended Plans deposit $15. CD 8/18—ENR 8/26.

Bids Asked October 9

Indian Head—Pub. Housing Auth., Temporary Bldg. 2, 19 and D Sts. N.W., D. C. 100 unit family dwellings, Md Tentative bid date.

Bids Asked After October 15

Jersey—Pub. Housing Auth., NHA, way., New York, 7, N. Y., family dwell- NJ 5-3. CD 8/23—ENR 8/26.

Bids Asked

ssachusetts—U. S. Eng., 31 St. James Boston (selected list bidders), temporary No. 19-023-44-Neg-48, Middlesex Co. $50,000.

ssachusetts—U. S. Eng., 31 St. James Boston (selected list bidders), altering No. 19-023-44-Neg-25. Under $50,000

Jersey—Eclipse Aviation Corp., div. Aviation, Bendix, engineering test Federally financed.

nsylvania—Pub. Housing Auth., NHA, way., New York, 7, N. Y., drainage incinerator, storm drains, water- g. for housing, Pa. 36015. Plans de- $25 each or $100 for all four. Wigham b. 315 S. 15 St., Phila., archts.

nsylvania—Pub. Housing Auth., NHA, way., New York, 7, N. Y., commercial s. community bldg., Pa. 36131, for ew County Housing Auth., 201 County Bldg., Pittsburgh. Plans deposit $25. 79—ENR 8/26.

as—Pub. Housing Auth., NHA, 1205 e Bldg., Seventh and Taylor Sts., Fort (selected list bidders), 500,000 gal on storage tank.

Lackey—Federal Works Agency, State s Bank Bldg., Richmond. Zone 19. ion center. Carneal, Johnson & Atlantic Life Bldg., Richmond.

BIDDERS

lifornia—City of Vallejo Housing Auth., Apts., Ryder St., Sept. 1, dormitory dations, Calif., 4732, for NHA, from King, 231 Franklin St., San Francisco. 4. CD 8/25.

necticut—Pub. Housing Auth., NHA, 25 Bldg., 135 High St., Hartford, Sept ing units, Conn. 6203, 6204 and 6081X. City Constr. Co., 955 Main St., Bridge- $12,000. CD 8/30.

ho—Pub. Housing Auth., NHA, Skinner 2 Ave. and Union St., Seattle, 1, Wash., 2, housing, Idaho 10105, from Bennett, & Frates, Billings, Mont., $153,400 31—ENR 7/29.

Evansville — Evansville State Hos- al, Bd. Trustees, G. W. Schnute, pres., rebuilding State Insane Hospital, incl. patients bldg., 5 units, administration superintendent's residence, etc., from Newberg Constr. Co., 9 S. Clinton St., Ill., $1,583,700. CD 8/13—ENR 8/19.

ntucky—Pub. Housing Auth., NHA, 8 St., Cleveland, O., Sept. 1 and 4, ory housing, Ky. 15106, and Ky. 15110, Foster & Creighton Co., American Natl. Bank Bldg., Nashville, Tenn., $198,800. 2 and 8/31—ENR 8/5, 8/19 respectively.

laine—Pub. Housing Auth., NHA, 24 hool St., Boston, Mass., Sept. 7, housing, 2 and 17083, from Bowen Constr. Co., bury St., Boston, Mass., $999,000. CD NR 9/2.

issippi—Pub. Housing Auth., NHA, a Savings Bank Bldg., Peachtree and Sts., Atlanta, Ga., Sept. 9, 100 unit e, Miss. 22174, from Algernon Blair, t Natl. Bank Bldg., Montgomery, Ala., 0. CD 8/31—ENR 9/2.

nessee—U. S. Eng., Grant St., west of ood St., Mobile, Ala., facilities, incl. con- existing bldgs., Coffee Co., from Gold- t & Bethune, Tullahoma, under $500,-

†**Wis., Beloit**—City Clerk, Sept. 3, hospital addn., Wis. 47-123, from Cunningham Bros., 359 E. Grand Ave., **$216,890. FWA.** CD 8/18—ENR 8/26.

CONTRACTS AWARDED

★†**Alabama**—Goodyear Tire & Rubber Co., 1144 E. Market St., Akron, O., and Decatur, rayon cord mfg. plant, to A. K. Adams Constr. Co., 542 Plum St. N.W., Atlanta, Ga. Est. **$600,000.** Federally financed.

†**Alabama**—U. S. Eng., Grant St. west of Westwood St., Mobile, bldgs., Mobile Co., to Algernon Blair, First National Bank Bldg., Montgomery, **$125,000.**

★†**California**—Pub. Housing Auth., NHA, 785 Market St., San Francisco, family dwelling units, Calif. 4735, and dormitory accommodations, Calif. 4736 to Rob. E. McKee, 4700 San Fernando Rd. W., Los Angeles, **$989,100.** CD 7/27—ENR 7/29; family dwelling units, Calif. 4738, to J. Keith, 8517 W. 3 St., Los Angeles, **$349,019.** CD 8/23.

†**California**—U. S. Eng., 74 New Montgomery St., San Francisco, bldgs., Spec. 928 and 957, San Francisco Co., to MacDonald & Kahn, Inc., 200 Financial Center Bldg., San Francisco. Est. under **$40,000.** Awarded 9/7. CD 8/17—ENR 8/19.

†**California**—U. S. Eng., 74 New Montgomery St., San Francisco, housing, Spec. 1073-1, northern California, to Robert McCarthy Co., 1050 Kirkham St., San Francisco. Est. over **$400,000.** Awarded 9/7.

†**California**—U. S. Eng., 751 S. Figueroa St., Los Angeles, Zone 14, bldgs., utilities, paving, No. 155, Los Angeles Co., to Weymouth-Crowell Co., 2014 E. 15 St., Los Angeles, **$100,000-$200,000.** Awarded 9/6.

†**Calif., Alameda**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., 2 temporary storehouses, NAS, NOY 6918, to Cahill Bros., 206 Sansome St., San Francisco, **$497,850.** CD 6/21.

★†**Calif., Pleasanton**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., completion of work under NOY 5863, NOY 7516, to McNeil Constr. Co., 5860 Avalon Blvd., Los Angeles***auditorium, B.O.Q's, etc., NOY 7259, to Fred J. Barley Jr. Co., 369 Pine St., San Francisco, **$282,152*****fire hat. expansion, Camp Parks, NOY 7575, to Barrett & Hilp, 916 Harrison St., San Francisco. CD 5/24.

★†**Colorado**—U. S. Eng., 909 17 St., Denver, general contract Schedule 2, incl. bldgs., Weld Co., to Maxey & Leftwich, Lubbock, Tex., **$752,000;** Schedule 1, incl. grading, to Blanchard Brothers Co., Cheyenne, Wyo., **$36,741.** Crocker & Ryan, First National Bank Bldg., Denver, archts. CD 9/8

†**Georgia**—U. S. Eng., Post Office Bldg., Savannah, bldg., to C. M. Guest & Son, Anderson, S. C., under **$100,000.**

†**Massachusetts**—U. S. Eng., 31 St. James Ave., Boston, addnl. housing facilities, No. 19-023-44-Neg-27, Barnstable Co., to Carilli Constr. Co., 281 Adams St., Dorchester. Est **$100,000-$500,000.** Bids 8/25. CD 8/19.

†**Massachusetts**—U. S. Eng., 31 St. James Ave., Boston, temporary bldgs, No. 19-023-44-Neg-39, Middlesex Co., to Davison Constr. Co., 1206-A Elm St., Manchester, N. H. Est **$100,000-$500,000.** Bids 8/31.

†**Michigan**—Goodyear Tire & Rubber Co., E. Market St., Akron, O., brick, steel, concrete factory, to G. A. Fuller, 111 W. Washington St., Chicago, Ill. Est., **$200,000.** Federally financed. J. Gordon Turnbull, 2630 Chester Ave., Cleveland, O., archts.

★†**Michigan**—Pub. Housing Auth., NHA, 2073 E. 9 St., Cleveland, O., housing, Mi. 20179, to Miller-Davis Co., Kalamazoo, **$592,-000.** Bids 8/13. CD 8/25—ENR 9/2 under LB.

†**Nevada**—Pub. Housing Auth., NHA, 785 Market St., San Francisco, Calif., family dwellings, Nev. 26152, to E. C. Nickel, 1401 Rancho Rd., Santa Anita Oaks, Arcadia, Calif., **$229,000.** Bids 9/4. CD 8/24—ENR 8/26.

†**New Jersey**—Bethlehem Steel Co., foot of 14 St., Hoboken, transformer sub-station, Hudson Co., to Jas. Waters Corp., 415 Lexington Ave., New York, N. Y., **$15,000.** Federally financed.

†**New Jersey**—Federal Shipbuilding Co., Lincoln Hy., Kearny, pipe maintenance bldg., to Jas. Muscarelle, 115 Midland Ave., Garfield, **$40,000.** Federally financed.

†**New Jersey**—U. S. Eng., 120 Wall St., New York, 5, N. Y., bldg., Essex Co., to Hansen-Jensen, Inc., 427 N. Broad St., Elizabeth, **$50,000.** CD 8/30—ENR 9/2.

†**New Jersey**—U. S. Eng., 120 Wall St., New York, 5, N. Y., platforms for enclosures to Bldg. J-1, Middlesex Co., to Anthony Lewis, Inc., 40 Clinton St., Newark, **$50,000.**

†**New Mexico**—U. S. Eng., 4 and Gold Sts., Albuquerque, bldg., Luna Co., to S. V. Patrick, Deming, **$40,000.**

†**North Carolina**—U. S. Eng., 308 Custom house, Wilmington, bldg., Iden. 982-44-20, Onslow Co., to P. S. West Constr. Co., Statesville, under **$50,000.** Awarded 8/24.

†**North Carolina**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., complete sprinkler sys. for bldg. Contr 7010, Spec. 11886, to Century Sprinkler Corp., 305 Graham St., Richmond, Va., **$16,000.**

†**Pennsylvania**—U. S. Eng., Standard Oil Bldg., Baltimore, Md., temporary frame bldgs., Contr. 18-020-eng-90, Chester Co., to Cummins Constr. Corp., 803 Cathedral St., Baltimore, Md. **$200,000.** Bids 8/16. CD 8/12—ENR 10/15.

†**R. I., Middleton**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., road imprvs., Anchorage Naval Housing Project, NOY 6882, to Callan Constr. Co., Bristol, **$30,841.**

★†**South Carolina**—Pub. Housing Auth., NHA, Georgia Savings Bank Bldg., Peachtree and Broad Sts., Atlanta, Ga., housing, to Henry C. Beck Co., Atlanta, Ga., **$1,012,700.** Bids 8/24, awarded 9/1. CD 8/31—ENR 9/2 under LB.

†**Texas**—U. S. Eng., Albuquerque, N. M., bldgs., facilities, Sol. W29-005-Eng-44-26, El Paso Co., to Rob. E. McKee, 1918 Texas Ave., El Paso, approx. **$70,000.** CD 7/28—ENR 8/19.

†**Utah, Salt Lake City**—St. Marks Hospital, 2nd, West and 7 North Sts., 5 story, 40x100 ft. hospital addn., to Young Constr. Co., 1st Natl. Bank Bldg., **$175,000. FWA.** Ware & McLenahan, 610 Utah Savings & Trust Bldg., archts. CD 6/30—ENR 7/8.

†**Va., Norfolk**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., completion of work (bldgs.) under NOY 4375, Cheatham Annex, N O B, NOY 7339, to Virginia Engineering Co., 330 28 St., Newport News. Additional to CD 10/22, under CA.

†**Va., Portsmouth**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., dental clinic, mental wards, alterations and addns. to bldgs., etc., Norfolk Navy Hospital, NOY 7321, to Rust Engineering Co., Clark Bldg., Pittsburgh, Pa., **$310,000.**

†**Va., Yorktown**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., barracks, garages, etc., Naval Mine Depot, NOY 6535, to Virginia Engineering Co., Inc., 330 28 St., Newport News, **$329,000.**

★†**Wash., Bremerton**—School Bd., high school bldg., to Sound Constr. & Engineering Co., Northern Life Tower, Seattle 1, **$829,000.** Bids 6/24. CD 6/29—ENR 7/1.

★†**Wisconsin**—Ladish Drop Forge Co., 5405 S. Packard Ave., Cudahy, design and construction 1 story, 200x300 ft., rein.-con., brick heat treating and processing plant, to Klug & Smith Co., 111 E. Wisconsin Ave., Milwaukee, Zone 2. Est. over **$1,000,000** incl. equip. Defense Plant Corp. will finance.

N. S., Halifax—Dom. Govt., Ottawa, Ont., central steam heating plant, to Connolly & Twizell Ltd., 1405 Bishop St., Montreal, Que., **$54,000.** Dpt. Natl. Defense (Air), Lisgar Bldg., Ottawa, Ont., archt.

Que., Montreal—Dpt. Natl. Defense (Sea), Ottawa, Ont., central victualling depot, to Deakin & Stewart Ltd., 1440 St. Catherine St. W., approx. **$50,000.**

COMMERCIAL BUILDINGS

PROPOSED WORK

Calif., San Bernardino—L. V. Hunsaker & Assoc., 2711 W. 7 St., Los Angeles, plans by C. N. Aldrich, 1834 Dawson Ave., Long Beach, one hundred fifty 6 room frame, stucco dwellings, over $500,000.

Kan., Kansas City—Douglass Hospital, 336 Quindaro St., plans by Bloomgarten & Frowerk, 512 Fidelity Bldg., Kansas City, Mo., nurses training school. $151,000. Filed application for FWA funds.

La., New Orleans—A. M. Pratt, 814 Perido St., soon lets contract 87 dwellings for Windsor Drive, Inc., c/o Favrot & Reed, archts., Nola Bldg. $375,000.

N. M., Clovis—Memorial Hospital plans by J. Schaefer, Clovis, addnl. hospital construction. Applying for FWA funds.

N. Y., Buffalo—Owner c/o G. M. Ralkin, Ellicot Sq. Bldg., 80 duplex dwellings, Riverside Sect. $400,000.

O., Bedford—A. R. Taylor, 4975 Valleyview Rd., Cleveland, thirty-four 1½ story, 25x29 ft., brick homes. $204,000.

O., Maple Heights—A. Puccianni, 26 N. Carlyon Rd., thirty-one 1½ story, 25x27 ft., brick homes. $186,000.

Okla., Frederick—Miller-Estes Co., Colcord Bldg., Tulsa, 200 dwellings. $350,000.

★**Ore., Portland**—Harry Mittleman, 710 S.W. Madison St., plans by Herman, Brookman & Richard Sundeleaf, Fenton Bldg., 264 garden type dwelling units, SE 60 Ave. between Division and Lincoln Sts. $2,000,000; 242 dwelling units, SE 65 Ave. at Tillamook St., $2,000,000; 44 dwelling units, on NE 33 Ave. at Oregon St. $500,000.

Pa., Somerset—L. Harrington Gibbs, Somerset, housing development, inc. paving streets, sidewalks, utilities, etc. at Highland Park sub-division, ¼ mi. from here. Over $200,000. R. Smith, Somerset, engr.

Tex., Dallas—Gardena Development Co., 4353 Lovers Lane, plans by E. A. Fretz, Jr., Liberty and Live Oak Sts., fifteen 2 story, brick veneer apartment bldgs. $150,000.

Tex., Houston—J. James, 5123 Hulsache Ave., 25 dwellings, facilities, utilities, etc $150,000.

COMMERCIAL BLDGS. (Proposed Work

★ **Tex., Houston**—Collins Development Co., J. C. Collins, Jr., vice-pres., 400 dwellings on Market St. Rd. $1,800,000. FHA. D. M. Duller, Second National Bank Bldg., engrs.

★ **Tex., Houston**—Santa Rosa Corp., 7443 Park Place Blvd., one hundred fifty-five 1 story, brick, structural clay tile dwellings. Owner builds. $1,000,000. FHA. J. Knostman, 2017 W. Gray St., archt. CD 9/9.

★ **Tex., Pasadena**—Jas. T. Taylor, 605 1st Natl. Bank Bldg., Fort Worth, plans by Dav. M. Duller, 2nd National Bank Bldg., Houston, seven hundred forty-five 1 story, frame dwellings. $3,000,000. FHA.

Tex., Texas City—The 3rd Ave. Corp., c/o I. G. Sharp, Texas City, 12 brick, structural clay tile apartment bldgs. $300,000.

BIDS ASKED

Bids Asked about September 23

★ **Tex., Houston**—Miller-Estes Co., 3300 Main St., three hundred four 1 story, frame type dwellings, $1,250,000. P. G. Willard, Waggoner Bldg., Fort Worth, archt. CD 9/3—ENR 9/9.

CONTRACTS AWARDED

Calif., Alameda—C. H. McIntyre Co., Insurance Bldg., Oakland, eight 80 unit apartment bldg. Owner builds. $160,000.

Calif., Berkeley—J. M. Walker, 401 Spruce St., 54 duplex residences. Owner builds, $287,250. Paul Hammarberg, 2 Norwood St., archt.

Calif., Burbank—Cedric Roberts, 5655 Wilshire Blvd., Los Angeles, 95 stucco, frame type dwellings, to Colton Constr Co., 5225 Wilshire Blvd., Los Angeles, approx. $325,000. Allen & Lutzi, 5655 Wilshire Blvd., Los Angeles, archts.

Calif., Van Nuys—Security Constr. Co., 7801 Glenoaks Blvd., Los Angeles, twenty-three 4 family and thirty-three 2 family frame, stucco dwellings. Owner builds. $410,800.

Calif., Van Nuys—Word Home Builders Inc., 8423 Alameda St., Los Angeles, 55 stucco, frame type dwellings, to O. W. Stacy, 14,961 Valley Vista Blvd., Los Angeles, approx. $192,500.

Ill., Chicago—Fred J. Walsh Co., 134 N. LaSalle St., 2 story, brick duplex residences and row houses. Owner builds, $250,000. H. A. Stahl, 111 W. Monroe St., archt.

La., New Orleans—Orleans Park Apartments, thirty-one 4 family, apartment bldgs., on 2 squares in vicinity of Cambronne, Palmetto, Dixon, Peach and Joliet Sts., to Gervais F. Favrot, Balter Bldg., approx. $400,000. R. DeBuys, 1514 Calhoun St., archt. F. C. Gandolfo, Jr., Canal Bldg., engr.

O., Euclid—Benton Building Co., B. Lefton, 790 E. 260 St., forty 25x29 ft., brick dwellings, separate contracts. $240,000.

O., Euclid—Benton Building Co., B. Lefton, 790 E. 260 St., Cleveland, seven 2 story, bsmnt., brick, wood apartment bldgs. Owner builds. $200,000.

Pa., Phila.—Guilford Constr. Co., 6822 York Rd., 72 dwellings on Guilford St. between Rowland Ave. and Sackett St., to Ed G. Holloway, 6822 York Rd., $450,000.

Tex., Dallas—Triple D. Corp., Inc., Construction Bldg., twelve 2 story, duplexes, force account. Approx. $150,000.

Tex., Houston — Houston-Harris County Constr. Co., 706 Garden Oaks Blvd., eighty 1 story frame dwellings. Owner builds. $215,000. FHA. CD 9/9.

Tex., Houston—Meadowbrook Building Co., 8199 Howard Dr., 101 dwellings, utilities, paving, etc., to A. V. Arnold, 7800 Howard Dr., approx. $350,000. CD 9/1—ENR 9/9.

Tex., Pasadena—Brick Homes, Inc., sixty 1 story, dwellings, utilities, etc., to H. G. Copeland, 3057 Locke Lane, Houston, $325,000. J. Knostman, 2017 W. Gray St., Houston, archt. CD 9/6—ENR 9/9.

INDUSTRIAL BUILDINGS

PROPOSED WORK

Calif., South San Francisco—WAREHOUSE—Western Pipe & Steel Co., Butler Ave., South San Francisco, warehouse bldg.

Colo., Denver—GARAGE, etc.—The Rio Grande Motor Way, Inc., 1531 Stout St., plans by W. H. Simon, 2088 Dahlia St., large garage bldg. and bus terminal, 8 and Wazee Sts. $150,000.

Conn., Westport—PLANT—Dorr Co., Inc., Danbury Rd., soon lets contract brick plant addn., alterations.

Ia., Dubuque—FACTORY—Morrison Bros. Co., 24 and Elm Sts., rebuilding factory bldg., destroyed by fire. Over $40,000.

Manitoba — MINING DEVELOPMENT — E. A. Schultz, Schultz Mfg. Co. Ltd., Hamilton, Ont., drilling program in region of Herbert and Wolverton Lakes, northern Manitoba, (tungsten mines). $75,000.

Miss., Tuxedo—MACHINERY BLDG., etc.—Tuscaloosa Veneer Co., c/o O. E. Howell, Tuxedo, rebuilding machinery and stock bldg. $40,000.

N. Y., Brooklyn—FACTORY—Celto Realty Corp., A. Frederick Lutz, pres., 359 Flushing Ave., plans by J. M. S. Baker, 24-16 Bridge Plaza S., Long Island City, altering 2 story, brick factory, 44-72 Kent Ave. $200,000.

N. Y., Brooklyn — FACTORY — Lorberg Realty Co., Inc., S. Fine, pres., 1552 Berger St., altering 1 story, brick factory, 1552-1564 Berger St., $65,000. S. Rosenblum, 10 E. 40 St., New York, engr.

O., Bellefontaine—ROUNDHOUSE, etc.—New York Central R. R. Co., F. J. Jerome, ch. engr., LaSalle St. Station, Chicago, Ill., rebuilding roundhouse and machine shops, destroyed by fire. Over $40,000.

★ **O., Bellfontaine**—ROUNDHOUSE and MACHINE SHOP—New York Central R. R. Co., F. J. Jerome, ch. engr., La Salle St. Station, Chicago, Ill., rebuilding roundhouse and machine shop bldgs., destroyed by fire. $1,000,000. CD 9/9.

O., Cleveland—FACTORY—Cleveland Cap Screw Co., J. W. Fribley, pres., 2917 E. 79 St., brick, steel factory bldg. $100,000. H. M Morse Co., 1500 E. Superior Ave., engr.

★ **O., Painesville** — FACTORY — Industrial Rayon Corp., Hiram S. Rivitz, pres., W. 98 St. and Walford Ave., Cleveland, plans by Wilbur Watson & Associates, engrs. and archts., 4614 Prospect Ave., Cleveland, steel brick, concrete factory addn. Total for bldg. $2,000,000. CD 6/23—ENR 7/8.

Ore., Springfield — SAWMILL, etc. — C. W. Gurrier Lumber Co., reconstructing parts of sawmill, planer and resaw plant, destroyed by fire. $120,000.

Ore., Springfield—SAWMILL—West Oregon Lumber Co., Linnton (Portland), large sawmill, on 30 acre tract land. $200,000.

Pa., McKeesport—LABORATORY—National Tube Co., B. C. Coloord, genl. supt., National Wks., Frick Bldg., McKeesport, completed sketches, 2 story, bsmnt., brick, steel, concrete laboratory, H. Ottinger, Frick Bldg., McKeesport, engr.

Tex., Dallas—FACTORY—Guiberson Corp., 2626 Elm St., factory bldg., incl. air conditioning sys., sprinkler sys., etc. $45,000.

Tex., Edinburg—PACKING PLANT—Valley Citrus Assn., Edinburg, 1 and 2 story, brick, concrete citrus packing plant.

Tex., Houston—PLANT—National Supply Co., 6229 Navigation Blvd., 1 story, structural clay tile garment mfg. plant unit. $40,000.

Tex., Houston—OIL STORAGE—Shredded Steel Co., 1518 Oliver St., oil story bldg., lean-to, scale pit, asphalt paving, etc. $40,000 or more.

Tex., Houston (Galena area)—PLANT—Texas Co., 1700 San Jacinto St., refinery plant imprvs., addns. $150,000.

Tex., Jacksonville—STORAGE FACILITIES—Jacksonville Compress Plant, reconstructing cotton compress storage facilities. $40,000.

Tex., Mission—LABORATORY—S. C. Rieke, N. Shary Rd., 1 story, brick, rein.-con. laboratory bldg. Approx. $40,000.

Tex., Pharr—PACKING PLANT—R. Hartness, Alamo, 1 and 2 story vegetable and citrus packing plant unit. $40,000.

Tex., Raymondville—PLANT—Delta Canning Co., Raymondville, 1 story, 60x100 ft. vegetable and citrus fruits processing plant unit. $40,000.

★ **Wash., Ridgefield** — SAWMILL — Bratlie Bros. Lumber Co., sawmill reconstruction. $500,000.

Wis., West Bend—FOUNDRY—Gehl Bros. Mfg. Co., 143 Water St., plans by V. H. Esser, 4061 N. Prospect Ave., Shorewood, 2 story, 60x80 ft., brick foundry bldg. addn., concrete fdn.

B. C., Chilliwack—PLANT—Boeing Aircraft of Canada Ltd., 1927 W. Georgia St., plant and remodeling existing bldgs. $60,000

B. C., Nanaimo—PLANTS—Coast Vegetable Marketing Bd., c/o L. Gilmore, mgr., Nanaimo, establishing potato dehydration plants.

B. C., Vancouver—PLANT—Evans Products Co., Ltd., 7 Borden St., plant altering and extens., sash and door factory and planing mill, boiler house and 2 dry kilns, on North Arm of Fraser River, foot of Main St. $50,000.

Ont., Hamilton—FOUNDRY—Hamilton General Hospital, Barton St. S., Hamilton, hospital foundry addn. About $40,000.

Ont., St. Thomas—WAREHOUSE—Canadian Oil Co. Ltd., Terminal Bldg., Toronto, warehouse, storage tanks and bldgs. for distribution. $75,000.

Ont., St. Thomas—WAREHOUSE—Canadian Oil Cos.' Ltd., Terminal Warehouse Bldg., Toronto, large warehouse, storage tanks, and facilities for district distribution centralization. About $50,000.

Ont., Toronto—PLANT—Blake Paper Co. Ltd., c/o K. S. Murton, 1 Adelaide St., plant for mfg. paper and allied products, $40,000.

Ont., Toronto—MINING BUILDINGS—B. C. Lead & Zinc Mines Ltd., 80 W. Richmond St., mining bldgs., tram line, etc., at Crawford Creek, on Kootenay Lake, $50,000. W. S Macpherson, 80 W. Richmond St., engr.

Ont., Weston—MILL—Moffat's Ltd., 23 Dennison Ave., soon lets contract, sheet metal mill addn. $45,000, Prack & Prack, Pigott Bldg., Hamilton, archts.

Ont., Whitchurch—MINING STRUCTURES—Dease Lake Cassiterite Mines, Ltd., Whitchurch, mining structures, $40,000.

Que., Cadillac — MINING BUILDINGS—dian Molybdenum Ltd., Preissac, mining and housing for employees, $60,000.

Que., Pointe St. Charles (Montreal)—Keating Sons Ltd., 1029 Leber St., St. Charles, and 325 Iberville St., repairing plant bldg. $40,000.

BIDS ASKED

Bids Asked

Pa., Warren—POWER HOUSE—Pennsylvania Electric Co., R. A. Pickup, 21 W. 10 St., Erie, altering 1 story, ft. brick power house, 1 truck storage maintenance bldg., 101 Liberty St., Monahan, 406 Marine Bank Bldg., Erie.

LOW BIDDERS

Calif., South San Francisco—WAREHOUSE—Western Pipe & Steel Co., Butler warehouse bldg., from MacDonald & Inc., 200 Financial Center Bldg., San cisco, $217,712. CD 9/8—ENR 9/9

CONTRACTS AWARDED

Calif., Oakland—WAREHOUSE—Land Imprv. Co., 560 Kerckhoff Bldg., Angeles, concrete warehouse, to Wm. P. Co., Ltd., 83 McAllister St., San Fran Est. $90,000. H. T. Miller, 4814 Loma Los Angeles, archt.

Calif., Stockton—WAREHOUSE—Hay & Grain Co., 1000 W. Weber St., warehouse. Owner builds. $50,000.

N. J., Bayonne — PLANT — Nickel Co., 15 Oak St., 1 story, brick, with asbestos siding maintenance bldg., lunchroom and research laboratory additions, to Damon Douglas Co., 605 Ferry Newark, $50,000. Epple & Kahrs, 15 W ington St., Newark, engrs. and archts.

N. J., Newark—STORAGE—Public ducts Co., 46 Stanton St., 1 story, brick crete block storage bldg., to R. James 788 Stuyvesant Ave., Irvington, $40,000. Kimmel, 850 Broad St., archt.

N. J., Newark—LUMBER MILL etc.—ley-Hopping Lumber Co., Port Newark story, frame, lumber and sawing mill, to hony-Troast Constr. Co., 657 Main Passaic, $100,000. Warren C. Persell, Van Houton Ave., Passaic, archt.

Pa., Phila.—PLANT—Bigler Chemical Delaware Ave. and Packer St., 2 story ical plant, to S. H. Levin, 1717 Sansom $80,000.

Wis., Clayton — FACTORY, etc.—Cheese Co., Inc., 20 N. Jefferson St., Ill., factory and boiler house addn., to Johnson, Cumberland. Est. over $40,000. W. L. Alban, 885 Portland Ave., St. Minn., archt.

Wis., Eau Claire—MILK PLANT—Products, Inc., 756 Wisconsin St., 1 60x100 ft., milk plant, brick, rein.-con. builds. Est. $40,000.

Wis., Manitowoc—FACTORY—Chemical Co., 822 S. 14 St., 1 story, 60x1 brick factory addn., to Kasper Const. 1203 N. 16 St. Est. $40,000. F. W. 926 S. 8 St., archt. CD 3/30—ENR 4/

Wis., Port Washington—PLANT—schfeger Corp., lessee, 4400 W. National Milwaukee, alterations and repair for engine plant, to Endlich Constr. Co., Inc., N. 30 St., Milwaukee. Est. $40,000. R. c/o lessee, engrs. CD 8/31—ENR 9/2

Wis., Watertown—MILK PLANT—Co-Operative Assn., Juneau, 1 story, ft. milk plant, to Rhode & Kapelle Co., 3, Mayville. A. Kuenzl, 202 N. Water engr. CD 8/17—ENR 8/19.

Ont., Brantford — FACTORY — Plow Co., Ltd., 66 Mohawk St., 1 story addn., to Pigott Const. Co., Ltd., Bldg., Hamilton, $41,000.

Ont., Elmira—PLANT—Naugatuck cals, Ltd., Elmira, 1 story, 38x146 ft., pilot bldg., to Dunker Const. Co., Ltd., King St. W., Kitchener, about $15,000. Klaehn, 49 King St. E., Kitchener, engr.

Ont., Elmira—PLANT—Dom. Rubber Ltd., 149 Strange St., Kitchener, 16x1 brick plant addn., concrete fdn. and bldg., to Dunker Constr. Co. Ltd., King St., Kitchener. Est. $40,000. c/o R. B. Warr, 70 Arthur St., archt. Keachn, 49 E. King St., Kitchener, engr.

Ont., Toronto—PLANT—Bakelite Canada, Ltd., 163 Dufferin St., 2 story ft. frame and metal plant addn., to Nicholls Ltd., 57 Bloor St. W. $41,000. 8/6—ENR 8/12.

Que., Dolbeau—PLANT—Lake St. Power & Paper Co. Ltd., 826 Sun Life Montreal, remodeling existing bldgs. labor, $80,000.

Que., Montreal—WAREHOUSE—Oil Cos.' Ltd., Terminal Warehouse Toronto, Ont., brick warehouse, 6070 Notre Dame St. E., rein.-con. fdn. W. H. Harvey & Son, 56 Kensington Kingston, Ont., about $45,000. N. strong, 19 Melinda St., Toronto, Ont., archt.

For Proposal Advertisements see p.

UNRESTRICTED PUBLIC AUCTION SALE

A TREMENDOUS FINE STOCK OF

CONTRACTOR'S EQUIPMENT

TRUCKS AND CRANES
ALSO ROAD ROLLERS

FRIDAY, SEPT. 24TH, AT 10:30 A. M., AT

3622 PARK AVENUE Between 169th & 170th Sts., Bronx, N. Y.

4—Oshkosh (Diesels) Bottom Dumps, 13 yd., built 1940 4 wheel drive, tires 1800x24
4—Oshkosh (Gas) Bottom Dumps, 12 yd. (1938) 4 wheel drive. Tires 1800x24
7—8 yd. Sterling Dump Trucks (Perfect Condition)
2—Dodge Stake Trucks
2—GMC Dump Trucks
1—5 Ton Mack Truck Crane
1—1 yd. Northwest Crane, Model No. 105 with 50 ft. boom
1—¾ yd. Orton Crane, 35 ft. boom
1—1 yd., (Diesel) Bucyrus Erie Shovel
1—35 HP Cletrac Bulldozer with Bulldozer blade
2—2½ yd. Digging Buckets (never used)
1—10 ton, Buffalo Springfield Tandem Road Roller
1—10 ton Gallion, 3 wheel Road Roller
1—American Road Grader, Pneumatic Tires, complete with Cletrac Tractor
5—1938 Passenger Cars
3—Panel ½ & ¾ ton
4—Fuel Tank Trucks, complete
1—Baxter Single Spindle Shaper with built-in motor

MANY OTHER TRUCKS, TRACTORS & MISCELLANEOUS ITEMS

Write For Descriptive Circular *Inspection Daily Until Day Of Sale*

BERNARD MAGRILL
AUCTIONEER SINCE 1921

Office: 45 BROADWAY, BROOKLYN, N. Y.
PHONES STAGG 2-4574-4575

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CONSTRUCTION at the rate of over $65,000,000 per week is going under contract, bids are called on more work and still more is proposed.

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Business News Department

McGraw-Hill Publishing Co., Inc.
330 West 42nd St., New York 18, N.Y.

OFFICIAL PROPOSALS

RATE: The Rate for Official Proposal Advertising is 50 Cents per line (or fraction) per Insertion

COPY RECEIVED up to 10:00 A. M. Tuesday for Issue out Thursday Subject to Space Open for Last Minute Ads

SEND COPY to Official Proposal Division, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

OFFICIAL PROPOSALS

Bids: Sept. 22, 1943 (171)

State Highway Work

Sealed proposals will be received by the State Highway Department at its office, Dover, Delaware, until 2:00 P. M. E. W. T., Sept. 22, 1943, and at that time and place publicly opened for a contract involving the following approximate quantities:

CONTRACT No. 825
Lewes to Fort Miles - 1.572 Mi.
Sussex County
22' Cement Concrete Pavement
Federal Aid Project
DAWR-2

4,300 Cu. Yds. Excavation
1,600 Cu. Yds. Borrow
4,600 Cu. Yds. Cement Concrete Pavement
1,675 Lin. Ft. S.D.T. Expansion Joint
4,650 Lin. Ft. Trans. Contraction Joint
150 Lin. Ft. 18" Concrete Pipe

This project will come under the provisions of the Federal Highway Act, as amended, and the Defense Highway Act of 1941.

The Employment Agency for this contract shall be the Unemployment Service Division of the Unemployment Compensation Commission, at Georgetown, Delaware.

Attention is called to the Special Provisions in the proposal, specifications and contract agreement.

Performance of contract shall commence within ten (10) days after execution of the contract and be completed as specified.

Monthly payments will be made for 90 per cent of the construction completed each month.

Bidders must submit proposals upon forms provided by the Department.

Each proposal must be accompanied by a surety bond, certified check, or money to the amount of at least ten (10) per centum of the total amount of the proposal.

The envelope containing the proposal must be marked "Proposal for the construction of State Highway Contract No. ....."

The contract will be awarded or rejected within twenty (20) days from the date of opening proposals.

The right is reserved to reject any or all bids.

Complete sets of plans and specifications may be obtained after September 8, 1943, upon receipt of two dollars ($2.00) for each contract which amount will not be refunded.

Make checks payable to the State Highway Department.

STATE HIGHWAY DEPARTMENT
By: F. V. du Pont, Chairman.
W. W. Mack, Chief Engineer.
Dover, Delaware.
August 25, 1943

(U. S. Government)

Public Roads Administration, Federal Works Agency, Arlington County, Virginia, September 4, 1943, SEALED BIDS will be received at the office of the District Engineer, Public Roads Administration, 1440 Columbia Pike, Arlington, Virginia, until 10:00 o'clock a.m. E.W.T., September 20, 1943, for the *Construction of project VA DA WR-8 Grading 17, War Department Building-Road Network, Arlington County, Virginia.* The approximate quantities of the more important items are as follows: 100,400 Cu. Yd. Excavation; 600 Lin. Ft. Concrete Culvert Pipe and 2,500 Cu. Yd. Furnishing and Placing Loamy Topsoil. Minimum rates of wages for laborers and mechanics on this project will be fixed by the Secretary of Labor as required by law. Plans, specifications and proposal forms may be obtained at the address given above. H. J. Spelman, District Engineer.

EMPLOYMENT OPPORTUNITIES

RATE: 10 CENTS A WORD, MINIMUM CHARGE $2.00

Positions Wanted (full or part time individual salaried employment only), ½ the above rates, payable in advance.

Box Numbers in care of any of our New York, Chicago or San Francisco offices count 10 words additional in undisplayed ads.

Discount of 10% if one payment is made in advance for four consecutive insertions of undisplayed ads (not including proposals).

Copy for new advertisements received until 10 A. M. Friday for following Thursday's issue

CIVIL SERVICE EXAMINATION

100 DRAFTSMEN (men and women)—for war work; ship, electrical, mechanical, topographic, statistical, etc. For bureaus of Navy, Commerce and Treasury Depts. and W.P.B. in Washington, D. C. and throughout U. S. Salary range $1,752 to $3,163 a year. Instruction available to beginners or those now in similar work. Announcement 283 and application forms available at first and second-class postoffices. U. S. Civil Service Commission, Washington, 25, D. C.

POSITIONS VACANT

These Positions Vacant advertisement are published subject to agrement by the advertisers not to consider applicants now employed on war work unless they obtain written release from present employer.

ESTIMATOR AND ENGINEER for general contractor's office in middle west. Must be experienced in all types of general building and bridge construction. Permanent position. State in first letter qualifications, experience, age and draft status and salary desired. P-830, Engineering News-Record, 520 N. Michigan Ave., Chicago, 11, Ill.

DESIGNERS AND DRAFTSMEN Structural, Electrical and Mechanical. Also Electrical and Mechanical Inspectors. Defense job. East Tennessee. P-841. Engineering News-Record, 520 N. Michigan Ave., Chicago, 11, Ill.

ENGINEER OR ESTIMATOR. Graduate engineer age 30-40 with experience in building construction. Permanent connection for the proper man. Give age, education, experience, salary expected, reference and draft status in first letter in own handwriting. Enclose recent photo. P-853, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

TRACK FOREMAN WANTED. Willing to travel. Middle Atlantic and New England States. State experience and qualifications. P-871. 330 W. 42nd St., New York, 18, N. Y.

PROCESS PIPING & ELECTRICAL ENGINEERS & Draftsmen wanted. State experience in detail, references, salary desired and date you can report. The Rust Engineering Company, Clark Building, Pittsburgh, Pa.

POSITIONS WANTED

CONSTRUCTION EXECUTIVE—Age 51— Experienced General Building—Construction—Estimating — Purchasing — Costs — Finance — Negotiation — familiar government procedure and contracts—Project Manager three Navy Projects—States and Latin America. Available immediately. PW-797. Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

WELDING SUPERVISOR, with tank erecting crew, now available, go anywhere, will consider Position as Welding Supervisor in War plant. Experience covers wide field of heavy construction Refineries Storage Tanks and pipe lines. Reference. PW-801. Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

SANITARY ENGINEERS, interested in either Domestic or Foreign Service. Experienced in Design, Construction, Operation and Laboratory Control of Water and Sewage Systems of all types. PW-815, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

PROJECT OR CONSTRUCTION MANAGER or general superintendent. Experience 30 years covering all kinds of structures and types of contracts in both the private and government fields, last three on low cost and defense housing. Location immaterial. PW-829, Engineering News Record, 330 W. 42nd St., New York 18, N. Y.

SUPERINTENDENT CONSTRUCTION, 32 years experience varied extensive projects Engineer and expert co-ordinator. PW-846, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

GRADUATE CIVIL ENGINEER, twelve years general experience investigation, design and construction water supply and conservation works; fiscal reports, etc. Speak Spanish. Licensed in California. Employment location not material. PW-845, Engineering News-Record, 68 Post St., San Francisco 4, Calif.

POSITIONS WANTED

Help Wanted

Large fabricating shop located in Pittsburgh area wants experienced Structural Steel Estimator and Designer who understands structural steel shop costs. Give references and salary expected with application.

P-793, Engineering News-Record
330 W. 42nd St., New York 18, N. Y.

WANTED PRODUCTION MANAGER

Do you have a successful background of structural and plate shop experience with a record of cost efficiency, good labor relations and maintenance of output? Exceptional opportunity available in plant in Western Penna. if you are seeking challenge to your ability. Remuneration commensurate with results. Give photograph, initial salary requirements and full experience particulars first letter.

P-870, Engineering News-Record
330 W. 42nd St., New York 18, N. Y.

MASTER MECHANIC, available at once. Age 46, 25 years experience repairing and maintaining heavy construction equipment. Just released from the Army. Will go any place. Good references. Reply to be sent to PW-843. Engineering News-Record, 520 N. Michigan Ave., Chicago, 11, Ill.

STRUCTURAL - MECHANICAL engineer, 20 years experience, registered New York State. Design, construction, maintenance, sales, Structures, mechanical handling, equipment. PW-847, Engineering News-Record, 330 W. 42nd St., New York 18. N. Y.

GENERAL CONSTRUCTION FOREMAN, 25 years experience all kind excavations. Grading, sewers, water lines, foundations and concrete. PW 856, Engineering News-Record, 330 W. 42nd St., New York 18, N.Y.

HYDRAULIC ENGINEER—Age 29, 3B, 7 years experience, all responsible positions in design and installation of pumping stations, pipe lines, reservoirs, sewage and waste disposal plants for both industrial and municipal projects. Could handle complete job from preliminary estimates and designs through to operation. Available Oct. 15. PW-857, Engineering News-Record, 68 Post Street, San Francisco, 4, Cal.

ENGINEER-EXECUTIVE—Age 50, College Graduate, 30 years experience as general superintendent and project manager on large building construction projects. Now employed, but desires new connection. Location immaterial. Salary $7500. PW-858, Engineering News-Record, 330 W. 42nd St., New York 18. N. Y.

OFFICE MANAGER—Draft exempt. Capable of assuming full charge of Construction office. Higher accounting and same legal education. 30 years experience in the accounting and Auditing field; thoroughly familiar with Construction costs and records—both from the standpoint of Contractor and Government. Can go anywhere. PW-831, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

ASSISTANT PROJECT MANAGER or General Superintendent, open after Sept. 21st. 25 years experience. PW-864. Engineering News-Record, 520 N. Michigan Ave., Chicago, 11, Ill.

FIELD ENGINEER—38—14 years construction experience. Public, industrial, commercial buildings; housing, airports, railroad bridge, roads, runways, sewers, utilities; surveys. Prefer work within 100 miles New York City or abroad. Over draft age. Available September 17th. PW-860. Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

POSITIONS WANTED

ESTIMATOR—25 years experience in carpentry, brickmasonry and reinforced concrete for industrial, residential and current construction. PW-859. Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

LABOR & PUBLIC RELATIONS DIRECTOR presently available. Thoroughly experienced all departments construction [illegible]. Complete knowledge Laws, Executive orders, Army and Navy Procedures, Union Regulations Selective Service Act, Housing. Competent Negotiator, Public Speaker. Excellent Contacts. Recently completed projects exceeding $50,000,000. Highly recommended. PW-861. Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

CIVIL ENGINEER graduate; 34 years experience; design and construction; water supply; industrial plants; power plants; hydro-electric developments. PW-862. Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

ESTIMATOR & TAKEOFF, experienced in various types of large Structures. Registered Architect. Age 47, salary $500.00 month, available after Sept. 22nd. PW-Engineering News-Record, 520 N. Michigan Ave., Chicago, 11, Ill.

CONSTRUCTION SUPERINTENDENT, age 39. Twenty years general construction experience including dams, hydro-electric plants, paving, docks, piers, buildings, shipways and floating drydocks. Available immediately. Will go anywhere but have preference for middlewest in vicinity of Great Lakes. PW-866. Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

ELECTRICAL CONTRACTOR'S SUPERINTENDENT. Best references from large electrical and supervising construction on heavy wood pole and steel tower line construction and distribution systems both for Army and private power companies. Draft status 3A will consider permanent connection only eastern territory preferred. Have good following key men. PW-872. Engineering News-Record, 68 Post Street, San Francisco 4, Cal.

BUILDING ESTIMATOR and purchasing Agent. 25 years experience. Thoroughly understand estimating, subletting, purchasing and office coordination. Just completed eleven months assignment on large rubber Mfg. plant. Salary open. PW-873. Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

GENERAL SUPERINTENDENT Sewers and Disposal Plants. After Sept. 23rd. PW-Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

WORK WANTED

EQUIPPED SURVEY PARTIES for all types of surveyor construction work. Any location. Harwood, 258 Broadway, New York City.

MISCELLANEOUS

Correction

REVIEW COURSES for New York Professional Engineers License Examinations, given under auspices Cooper Union Alumni Association. Eighteen two-hour sessions Structural Design and eighteen sessions Basic Engineering Wednesday evenings beginning **September 15, 1943**. Fee $10 each. Register now at Cooper Union Alumni Office, 313 W. 53rd Street, New York. Telephone Circle 5-5668, 2:00 P.M. to 9:00 P.M.

Don't forget the

BOX NUMBER

When answering the classified advertisements in this magazine don't forget to put the box number on your envelope. It is our only means of identifying the advertisement you are answering.

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